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COMMERCE AMERICA
FORMERLY COMMERCE TODAY

U.S. Department of Commerce / July 5, 1976

Resource Management by Aerial Inventory

Newsmemo

It's up, up, up for corporate training and development departments. Business Administration Dean George S. Odiorne has found that 40 percent of such departments now report direct to top management, while 42 percent report to personnel managers. Odiorne, of the U. of Massachusetts-Amherst, believes the shift is due to new emphasis on high-talent manpower, company strategies of humanistic management and priorities on promotion-from-within. Odiorne says Personnel defines a quality employee as one with a collection of credentials, whereas Training and Development views the quality employee as one with the ability to keep on learning.

Sending large amounts of first-class mail to well-defined geographic areas? Then a discount awaits from the U.S. Postal Service, effective July 6, in a move aimed at improving use of the ZIP Code. The rate for pre-sorted first-class mail of 500 or more pieces will go down by a penny for each group of ten or more pieces destined for the same five-digit ZIP address, or a group of 50 or more pieces destined for the same three-digit ZIP. For full information on how to get the discount, contact the nearest U.S. Postal Service Customer Service Representative.

Case-by-case assistance to U.S. firms that seek to market products in Eastern Europe, the Soviet Union and the People's Republic of China. It's available from Commerce's Bureau of East-West Trade. The assistance may range from explanation of techniques that differ from normal commercial practices to arrangement of contacts with appropriate national officials. In addition, the Bureau offers U.S. firms entry into a variety of promotional events designed to introduce firms and products into these markets. The full story is in a new booklet, "An Introduction to the Bureau of East-West Trade," available upon request from Office of East-West Trade Development, BEWT, Room 4823, U.S. Dept. of Commerce, Washington, D.C. 20230.

AF-AFG, DZ-DZA, AR-ARG, AU-AUS, AT-AUT. These are the standard two and three-letter codes for Afghanistan, Algeria, Argentina, Australia, and Austria, taken from lists of designations used instead of country names in the information systems of industrial, trade, professional and governmental units. The codes grew out of international vehicle identifications and with minor exceptions (such as Algeria) are derived from the English-language country names. Copies may be obtained from Commerce's National Bureau of Standards, Office of Technical Publications, Washington, D.C. 20234. Refer to NBS Letter Circular 1067.

The world has all the primary energy it will ever need—getting it to the people is the problem. General Electric R & D chief Dr. Arthur M. Bueche recently stated this view to a Canadian audience. He believes each nation should carry out the energy program best suited to it, and that the total energy solution thus becomes the sum of diverse national efforts. But with such diversity, he warns, free flow of information between nations is all-important: "We've got to tell each other what we are doing and how we are getting along at it."

Coastal Zone Management Act study for Minnesota! Yes, Commerce's National Oceanic and Atmospheric Administration is helping the state support a study of recreational facilities along the northwest shore of Lake Superior. Its grant is a supplement to an earlier one that aids the state in developing a complete management program for its "coastal" areas.

Flue dust, grinding swarf and mill scale, waste products all, can be converted into useful nickel-chromium stainless steel remelt alloy. And a resource-conservation plant to do so will be built in Pennsylvania by International Nickel (U.S.). The project, believed to be the first of its type to reach a commercial stage, is based on a process invented and developed at an Inco research laboratory. Capital investment in the project is expected to be in excess of $25 million.

No end in sight for the calculator market. So believes Richard Farley, who heads the Burndy Corp. that produces connectors for electronic calculator units. The market for pocket calculators went, he says, from 12 million in 1974 to 16 million in 1975, and could reach 40 million this year. Farley sees engineers developing calculators to monitor body functions, for use on phones or in autos, and even alphabetical calculators for language translation or spelling instruction.

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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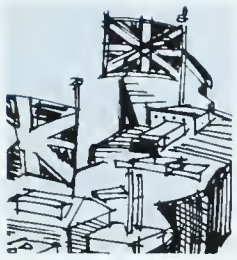

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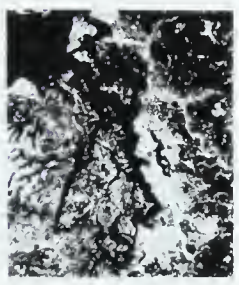

COVER: Aerial photographing of the Pacific Northwest region such as this view of the Puget Sound area of Washington State is necessary to a demonstration project of the Pacific Northwest Regional Commission in inventorying certain natural resources as an aid to management and planning for future usage. Story begins on page 4.

U.S. DEPARTMENT OF COMMERCE

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ECONOMIC HIGHLIGHTS

Fewer Sharp Fluctuations Expected In Rate Of Inventory Growth

Economic Highlights is prepared by Maynard Comiez, Deputy Chief Economist of the Department of Commerce.

In recent quarters, the growth of Gross National Product has been alternately buoyed and retarded by changes in inventory investment. Now, it appears that growth of GNP in the immediate future will more closely follow the pattern of final sales. During four quarters of economic recovery, business reaction to increasing sales, decreasing inflation, and other changes in the economic environment has brought inventories fairly close to the desired relationship with sales.

Since inventories represent a very volatile form of investment, they tend to make up or down movements in GNP much more pronounced when the economy is at or near a major turning point. Inventories represent an adjustment factor in these accounts so that GNP can be derived from final sales. Excluding the effects of foreign trade, inventory investment is the change in inventories that results from the difference between production and sales during any given time period.

For example, if inventory investment amounted to $10 billion in consecutive quarters, there would be a $10 billion difference between final sales and GNP, but there would be no stimulus to growth of GNP from inventory investment. As indicated in Chart 1, it is the increase or decrease in inventory investment (literally the *change* in "Change in Inventories") that affects the amount of change in GNP. Thus, in Chart 1, the change in inventory investment shows up as a plus in the third quarter of 1975 even though, in absolute terms, inventories declined throughout 1975. The stimulus to growth of GNP during that quarter occurred because the liquidation of business stocks was much less than in the previous quarter.

The change in inventory investment contributed a significant boost to growth of real GNP in the first quarter of 1976 when more than $12 billion of inventories were accumulated. It is not likely that the *rate* of accumulation will be increased in the second quarter. Thus, the *change* in inventory investment will be close to zero, and any change in GNP will have to be achieved from the change in final sales.

Chart 2 depicts the sales and inventory relationships in manufacturing and trade inventories over the past several years in terms of 1972 dollars. These business stocks generally follow the pattern of inventories in the GNP accounts, even though the GNP accounts also include inventories of nonmerchant wholesalers and farmers.

Businesses experienced an inventory-to-sales ratio (I:S ratio) of 1.73 in the first quarter of 1971, which was the initial stage of recovery from the 1970 recession. As sales continued to improve, the ratio fell to an average of about 1.58 during 1973. During the inflationary surge in 1974, businesses accumulated stocks to avoid price increases that were anticipated later in the year. Shortages in some areas encouraged even greater inventory accumulation as a hedge to guarantee continued production. At the same time, inflation led to an erosion of the real income of consumers. A number of events occurred, such as the oil embargo, gasoline shortages, and the like, which combined to reduce sharply the confidence of consumers, and consequently their purchases. Even with production cutbacks, the sharp decline in sales resulted in a surge in inventories. The I:S ratio soared to 1.87 in the first quarter of 1975. An upturn in sales, coupled with inventory liquidation throughout 1975, reduced this ratio to 1.69 by the first quarter of this year. The ratio is still higher than ratios in the 1972-1973 period.

An examination of manufacturing I:S ratios helps support the notion that a little further downward adjustment is likely. Retail and wholesale trade inventories comprise about 45 percent of total manufacturing and trade inventories. Chart 3 plots the overall I:S ratio for manufacturing, along with its three components. These ratios are not adjusted for price increases because constant-dollar data for the components are not available. The chart shows that the overall I:S ratio for manufacturing has returned to an amount slightly higher than the 1973 average.

There is some variation in the ratios of components of manufacturers' inventories. The ratio for work-in-progress inventories is lower than at any time in the last five years, while the ratio for finished goods inventories has nearly returned to the 1973 average. Inventories of materials and supplies seem high in relation to sales. This ratio may be affected by the change by many firms to an accounting technique for inventory valuation that gives a more current, and therefore higher, valuation for inventories. The I:S ratio for manufacturers' materials and supplies may not be reduced to the low achieved in 1973. At the same time, the high costs of maintaining inventories in terms of interest costs has led to the adoption of better inventory control techniques which may permit a further reduction in physical inventories relative to sales.

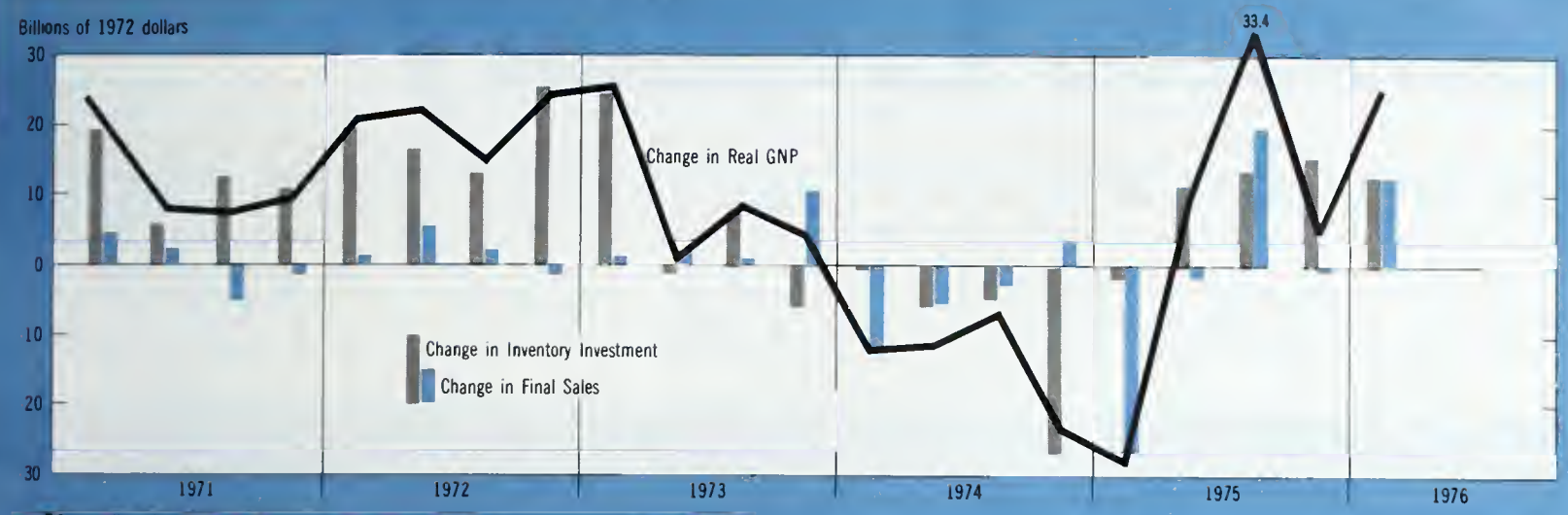
A recent survey of manufacturers' anticipations, conducted by the Bureau of the Census, indicated some further reduction in the I:S ratio for manufacturing. For the second and third quarters of 1976, these firms expect some increase in inventories, but this will be more than offset by a slightly faster increase in sales.

It should be noted that an overall figure showing inventories at an appropriate level does not preclude the possibility of tight supply situations or an overabundance of stocks in some industries.

In summary, the inventory to sales ratio, in constant dollar terms, is still at a higher level than was maintained in the previous recovery. Only a stronger-than-expected rise in sales would lead business to attempt an increase in the rate of inventory investment on the scale of the first quarter. Indications are that inventory accumulation in the second quarter will be somewhat less than in the first quarter. Thus, the growth of GNP in the second quarter will depend entirely on increases in other economic areas.

Inventories, Final Sales, and GNP (Constant 1972 dollars)*

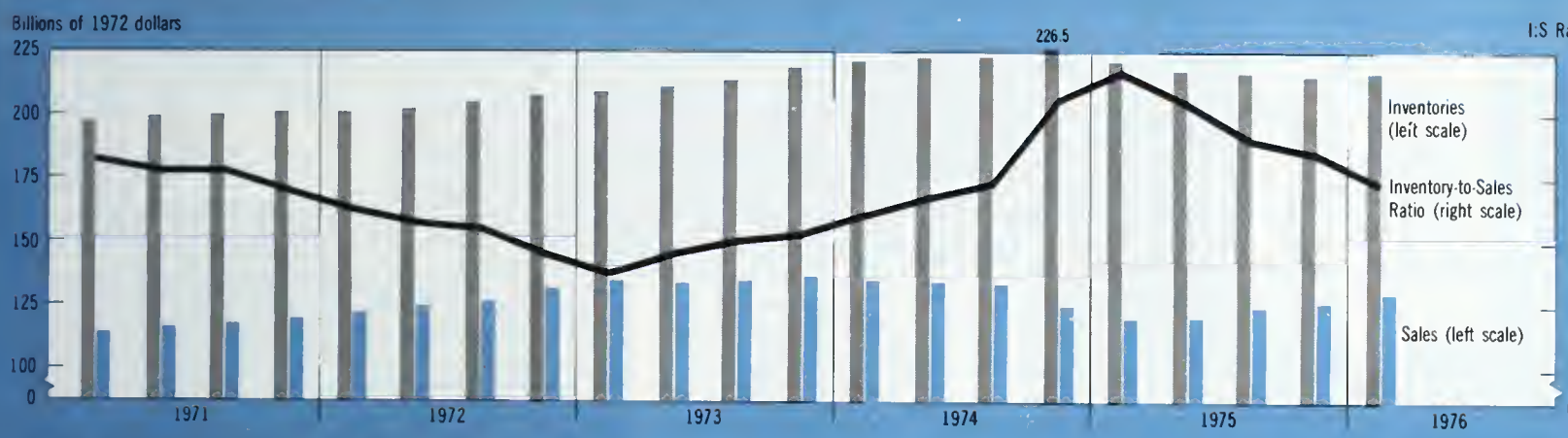
1



*Seasonally adjusted annual amounts

Manufacturing and Trade Sales and Inventories** (Constant 1972 dollars)

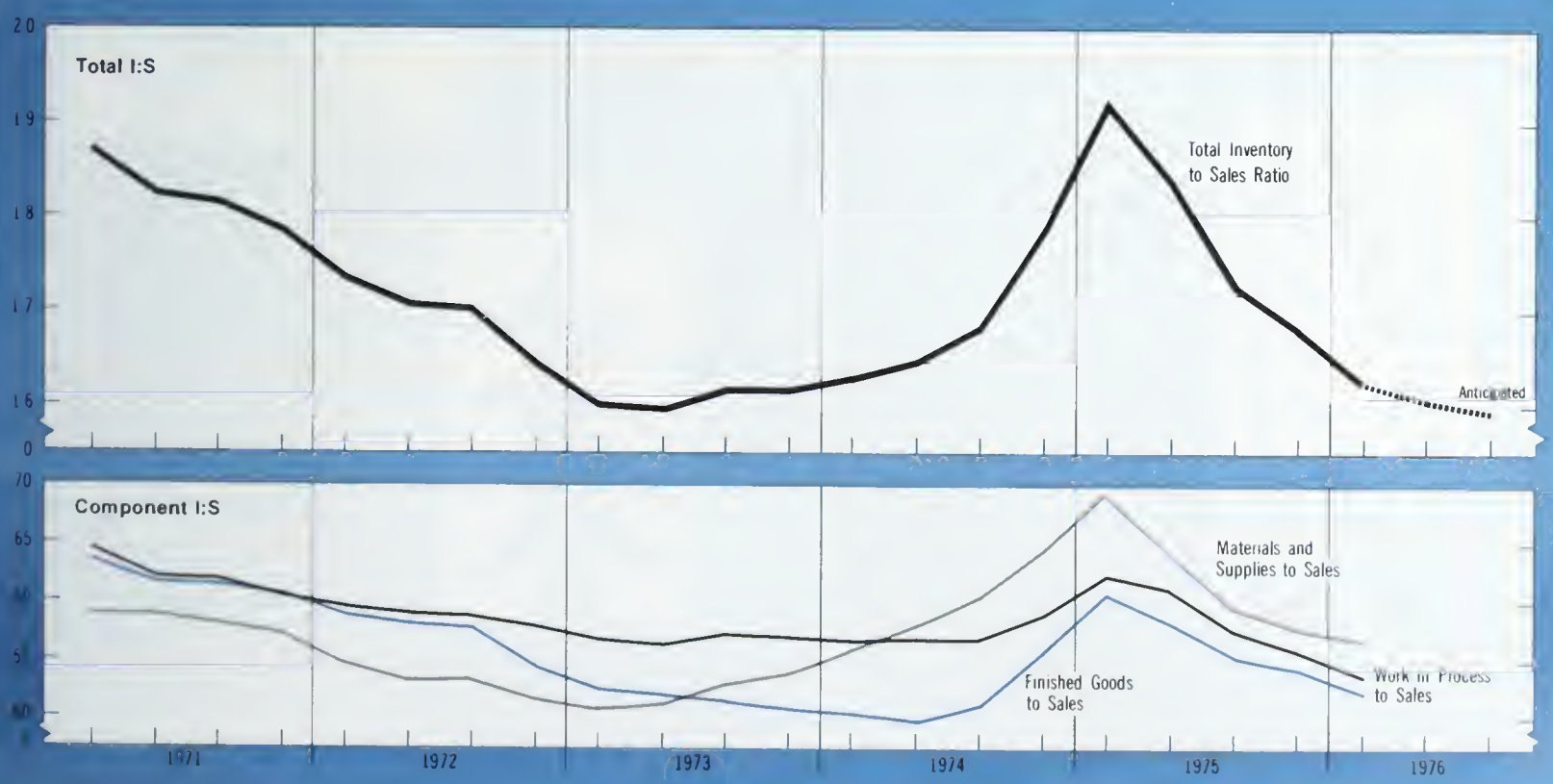
2



**Sales are seasonally adjusted quarterly averages at monthly rates. Inventories are seasonally adjusted end-of-quarter data.

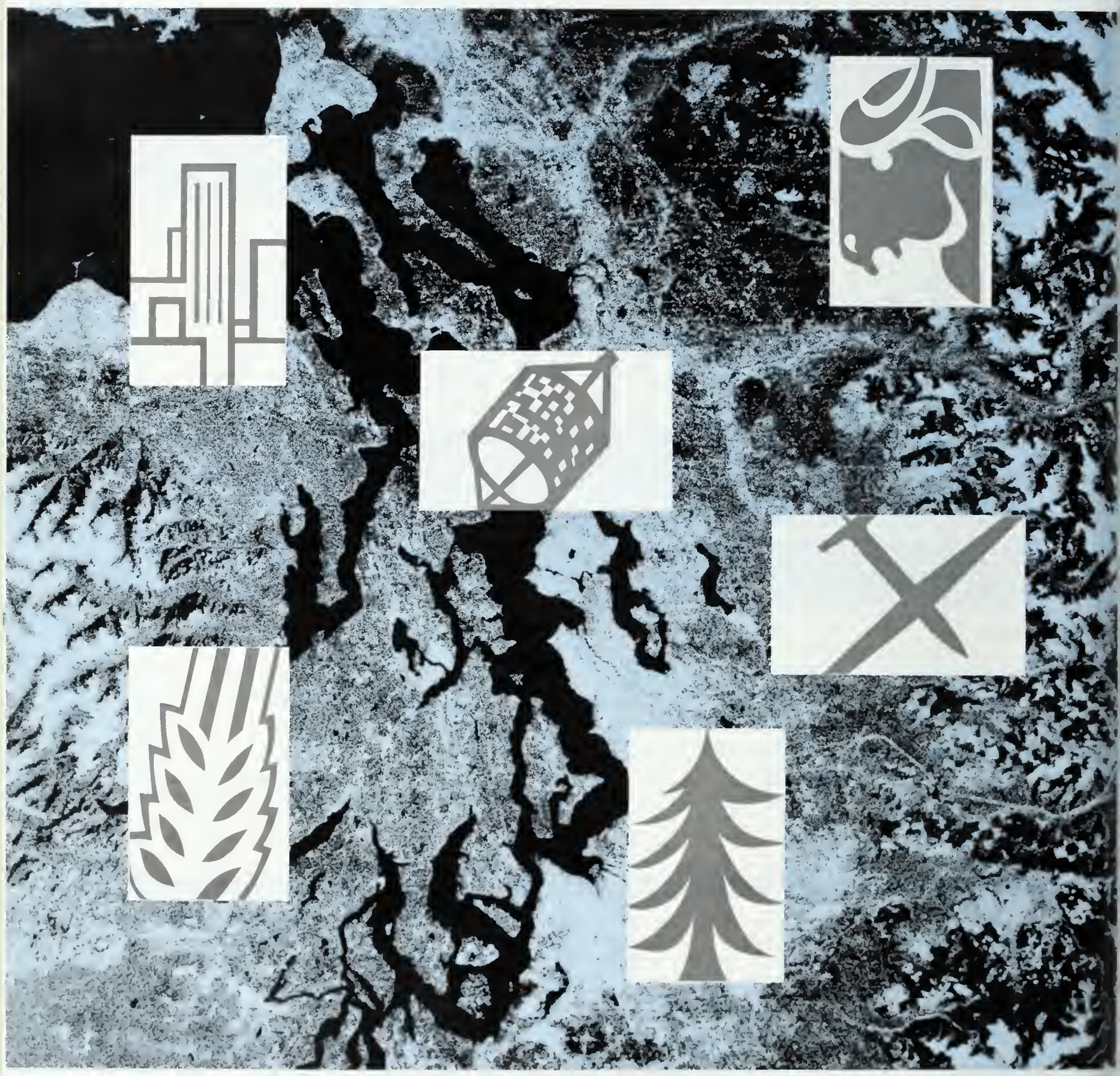
Inventory to Sales Ratio in Manufacturing (Current dollars)

3



Resource Inventory

HELPS STATES FACE COMMON PROBLEMS



The Pacific Northwest's economy is getting a helping hand from hundreds of miles out in space.

Remote-sensing satellites and U-2 photographic aircraft closer to earth are helping the Pacific Northwest Regional Commission (PNRC) demonstrate the usability of remote sensing to strengthen the natural resource planning and management capabilities of the region.

If the program yields the hoped-for economic benefits, its future nationwide implications are enormous.

Several major events led to the realization that regional approaches were required to solve many of Idaho, Oregon and Washington's common problems. One was the failure of the Congress and the Administration to agree on an energy policy. Another was the unsteadiness of markets for the wood products which are among the Northwest's primary assets. Growing fears about possible water shortages in an area that always thought it had limitless supplies of water were another.

Even though diversified manufacturing and services have greatly expanded in recent years, the economies of Oregon, Washington and Idaho still rely heavily on agriculture, lumber, paper, and food processing.

This heavy economic dependence on resources makes the Pacific Northwest susceptible to two adverse characteristics common to resource-oriented industries: long-run secular decline in employment opportunities and recurrent boom-or-bust cycles.

A state-by-state approach to many of these problems clearly would have been slow at best and duplicative at worst.

So, more than 35 state and local agencies, five major state universities, NASA and the Department of Interior have joined together under PNRC sponsorship in a project using space-age technology to inventory the area's natural resources.

Promising initiative

One of the most promising initiatives to result from this cooperation is the Land Resource Inventory project. Under this program, two Landsat satellites developed by the National Aeronautics and Space Administration view the Pacific Northwest electronically every nine days from an orbit nearly 500 miles high. Each satellite then produces digital images which represent the amount of light being reflected in various wave-lengths. Since different types of soil, vegetation, housing and other objects reflect different amounts of light, these images, when analyzed with the aid of a computer, provide economic information about the earth's surface.

Combined with high-altitude aerial photographs and selective checking at ground level, this method may provide very reliable information for management planning and decision making.

In selected areas of each state, the project is exploring possible economic applications of this remote sensing technique in four disciplines—forestry, agriculture, rangeland and urban development. Early indications are that the potential for both monetary savings and improved resource management in each of these areas is exciting.

This Demonstration Project is not only to illustrate the application of remote sensing technology, but equally important to transfer the technology to state and local agencies in the three states. Additionally, the project will investigate the establishment of an operational information system at a center in the region which will permit the large body of potential users in state and local government, in the business community, and in educational institutions to be directly involved in utilizing and evaluating this new technology.

The forestry study, for example, will provide an accurate inventory of timber volume in the areas selected for study, in addition to modernizing procedures that have been highly labor-intensive and not very accurate. Project directors point out that, for the first time in the history of the nation, it has the prospect of accurately determining if it is cutting its forests more rapidly than regrowth is occurring.

. . . the project is exploring possible economic applications of this remote sensing technique in four disciplines . . .

For agriculture-related industries, the acreage of different crop types can be determined, as well as an accurate count of irrigated versus non-irrigated croplands. This could contribute to more rational use of available water and more efficient management of the total crop.

Moreover, the project is using the satellites to help the livestock industry reduce cattle deaths by identifying the location and spread of Tansy Ragwort, a noxious weed. By determining range condition and productivity, the satellite can help this industry adopt more efficient stocking and grazing practices.

The urban discipline is centered on determining the amount of undeveloped land within city boundaries and assessing the rate at which urbanization is encroaching on prime agricultural and forest lands. To the urban planner, businessman and citizen, this means more efficient and economic land use.

However, to date the project has involved primarily the representatives of governmental bodies and universities. According to Jack O. Padrick, the Federal Co-Chairman of the Pacific Northwest Regional Commission, "What we are doing now is trying to demonstrate the worth of remote sensing. When we complete the demonstration projects, then we'll have some concrete data involving benefits and costs that we can take to businessmen to encourage their participation."

The demonstration projects are not due for completion until the summer of 1978, but "we're already beginning to get good indications that the process will be cost effective."

The Commission's emphasis on regional cooperation is not confined to space vehicles, however. The PNRC is concerned with the overall economic development and well-being of the three states of the region. The members of the Commission are: Governor Cecil D. Andrus of Idaho, Governor Daniel J. Evans of Washington, Governor Robert W. Straub of Oregon, and Federal Co-chairman, Jack O. Padrick.

Ahead of the game

The Commission, which was created in late 1972, realized very early the need for a sound regional energy policy to deal with expected future energy shortages. To initiate such a policy, Washington State University was selected to conduct a regional energy analysis and evaluate alternate energy sources. Shortly after this first comprehensive

The Commission realized very early the need for a sound regional energy policy . . .

analysis of Pacific Northwest energy began, imports of Middle East oil were curtailed, leaving the region in the lead in planning for survival in an oil-short world.

Now the Commission is expanding on the original policy study and sponsoring a two-year one million dollar analysis of the social, environmental, and economic impacts of alternative state and regional energy policies. This analysis is carefully investigating energy demand and supply relationships, energy conservation, contingency planning and institutional arrangements affecting energy production, distribution and consumption. The product of the analysis will be a display of the alternative policies and tools available to the Governors and legislators for use in effecting energy development and a careful discussion of the impacts on society, the environment and the economy of implementing each of the policies.

The need for coordinated management of the Columbia Basin has been realized only recently. Because of the abundance of water in the Pacific Northwest's largest river basin, it has often been considered a limitless resource. Virtually all available hydroelectric sites have already been developed. Municipal, industrial and irrigation water usage competes with fisheries resources requirements for available water. In addition, the trend toward nuclear electric power production in the basin, which requires vast amounts of water for cooling purposes, is expected to place further demands on Northwest water resources.

Under the aegis of the Commission, the three states organized meetings to reopen discussions of a Columbia River Compact that would coordinate management of the region's largest fresh water resource. The Commission has also placed high priority on salmon and steelhead fish resource problems. Heavy emphasis has been given to this resource because of its rapid recent decline.

In an area combining both energy and water problems, the Commission began a project to find a use for the millions of gallons of heated water discharged by nuclear power plants each day. For a variety of reasons, including damage to the fisheries resources shared by the three states, it is undesirable to return this heated water directly to the Northwest's major waterways.

The likelihood of the development of still more nuclear power plants in the region makes it much more necessary to find a solution before the area's agricultural and fishing industries suffer major harm.

Under a two-year program developed by the Commission, a research effort is being undertaken at Hanford Atomic Works, the site of several nuclear-fired electric power plants.

In cooperation with the Energy Resources and Development Administration, the State of Washington and several Northwest colleges, 900 acres was leased for the study of warm water use for agricultural purposes. The project involved soil tests, irrigation systems design, environmental analysis and institutional arrangements. The result of this research could provide for use of a presently wasted resource.

The Commission's international trade program has helped stimulate the Northwest's industries by expanding their overseas sales. A Commission-funded study looked into the means for enhancing regional productivity through foreign trade, and, based on its recommendations, the Commission has singled out several specific foreign trade targets—Southeast Asia, Japan, Korea and Taiwan.

Major efforts to date have focused on finding export markets for finished wood products and agricultural commodities—both raw and processed. Japan has been the focus for marketing of finished wood products since recent changes in Japanese building codes and lumber standards now make marketing of U.S. lumber and plywood in that country more feasible. Commission members, in cooperation with forest industry representatives, led a trade mission to Japan in the fall of 1975 to discuss use of U.S. building materials with Japanese government, labor and construction industry officials.

International marketing of agricultural commodities and foods has concentrated on both Asia and the Mid-East. The Commission has coordinated participation of regional food processors in food shows held in Tokyo, Osaka, and Kuwait.

People projects

One of the first projects begun by the Commission after its inception was an alternative futures program aimed at tying together citizen involvement planning efforts in the region's member states.

Three approaches were followed. First, state support grants were provided each state for assistance and coordination of Commission projects. Second, funding assistance was provided to the major planning agency in each state to expedite citizen involvement programs. Third, a comprehensive planning process was begun using consultants and state economic development agencies.

Although program emphases have varied between states, the expected benefit will be a set of citizen-developed goals to direct state, regional and federal investments in each state.

A Commission-sponsored human resources development project could have a significant impact on the region's economic loss due to recidivism by prisoners in state penal institutions.

The program demonstrates the coordinated application of vocational training to state prisons in the three Pacific Northwest states, the objective being to reduce return rates among first-time offenders by providing vocational skill training and job placements.

Program emphasis includes expansion of vocational training programs in landscaping, horticulture, auto body repair, small engine repair and automotive service.

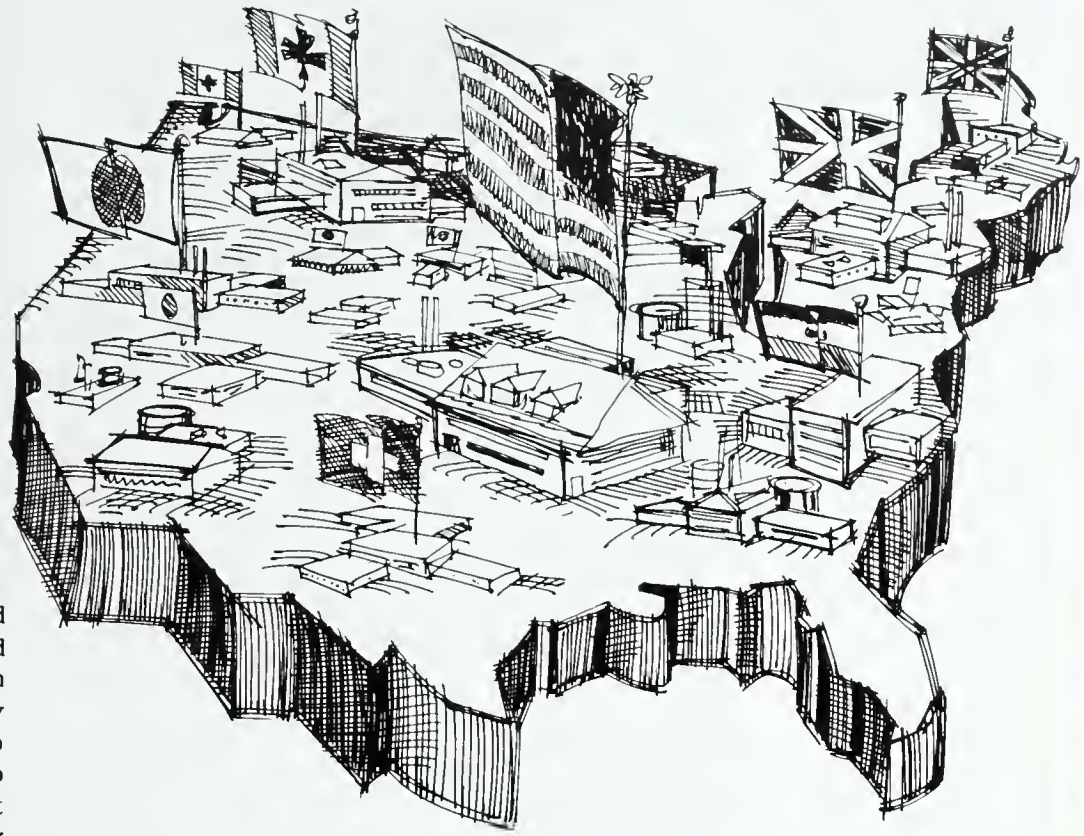
Stress is also placed on vocational education of inmates at local community colleges, rather than within correctional institutions. Available resources were brought to bear to aid individual inmates in selecting a training program, receiving training and obtaining a job.

A demonstration project provided training for 175 residents of Idaho, of whom 173 were employed in their field of training. The project helped residents of the Pocatello, Idaho, area qualify for jobs created by the recent development of a heavy manufacturing firm there.

From 500 miles out in space to within the walls of their prisons, three states are combining their resources to achieve common economic goals. ☆

Those Foreign Investors

Tell Why They Came



In a corporate boardroom abroad the decision had been reached: acquire an affiliate in the United States. The go-ahead came out of agreement on various points by the directors. Their firm, they felt, was now big enough and strong enough to consider the venture, it was ambitious enough to attempt it, its experience in world trading gave it confident knowledge of international financing and U.S. marketing, and—a timely consideration—the opportunity to purchase assets priced in devalued dollars appealed to the directors' bargaining instincts.

The scene emerges from a section entitled "Investment Motivation" in the new Commerce Department study on foreign direct investment in the United States. The study not only describes the extent, nature and significance of such investment (see *Commerce America*, May 10, for a summary report), but explains why it burgeoned in the decade of the '70s.

For this part of the overall investigation, the Commerce Department commissioned the Arthur D. Little, Inc., research firm to conduct confidential personal interviews last summer with executives of foreign parent companies that had undertaken direct investments in the U.S. Companies from Germany, the Netherlands, Switzerland, the United Kingdom, Canada and Japan—the nations represented in four-fifths of U.S. foreign direct investment—were selected. The 72 interviews were supplemented by 40 others held with leaders of international investment and banking institutions and government agencies.

The boardroom scene sketched above dramatizes the conclusion reached by the interviewers that the upsurge in foreign direct investment in the U.S. has been the product mainly of the following factors:

- Growth in financial and competitive capabilities of foreign corporations within their own economies over the last decade.
- Increasing undervaluation of major foreign currencies from 1965 into the '70s, which made foreign exports more cost-competitive in U.S. and third-country markets and contributed to the growing strength of companies abroad.
- Increasingly ambitious growth objectives for foreign multinational firms, including expansion of markets, product diversification, and complete control of production from raw materials to market.
- General world economic and political developments which have increased the attractiveness of the U.S. as a corporate investment site, including shifts elsewhere in labor costs and attitudes, and restrictions abroad, actual or feared, to free enterprises.
- Depressed U.S. stock market values during 1973 and 1974, the period prior to the conducting of the survey.
- Explosive expansion in business activity among the industrialized nations, opening the way for firms to satisfy foreign market demand and acquire valuable international financial and marketing experience.
- Trends toward mergers and consolidations in Western Europe and Japan in the late '60s which helped foreign firms exploit economies of scale in production, marketing, research and development.
- The 1971 and 1973 dollar devaluations and subsequent foreign currency realignments. In five of the six countries under study, investors could now buy, on average, 35-40 percent more in dollar-denominated real assets for the same amount of national currency.

Until recently the appeal of the U.S. as a corporate investment site had been based primarily on the relative size and growth potential of the big American markets. Since 1972 such developments as foreign labor unrest, uncertain raw materials availability, unsympathetic foreign government regulatory policies, and the prospect of declining export competitiveness abroad have entered the balance as foreign corporations weighed

The swiftness of the increase in foreign purchasing power had a strong psychological impact.

the U.S. against alternative investment sites.

Looking ahead, executives of foreign corporations told the Arthur D. Little interviewers that the U.S. probably will receive an increasing share of worldwide direct investment flows over the rest of the decade of the 1970s. Compared to alternative markets, they expect the U.S. to provide better profits, faster productivity growth, less labor unrest, increasingly more favorable labor costs, less governmental intervention, greater investment security and improved security of materials supply.

However, on a worldwide scale, foreign investment activity is expected to remain depressed through 1976 by delayed economic recovery in the industrialized nations, according to foreign executives. Some further estimates from the same interviews are:

From 1977 to 1980, the level of foreign direct investment activity will be dependent primarily on worldwide economic recovery and an alleviation of present corporate liquidity problems. Such activity in the U.S. is not expected to match the 1971-74 pace due to probable slower European and world economic growth, present uncertainties of the international monetary system, the inflationary tendencies of Western economies, leveraged corporate and banking debt structures in almost all industrialized nations, and the unknown world monetary impact of the surpluses in the oil-producing nations.

German and Japanese corporations are expected to produce the greatest increases, among the nations studied, in foreign direct investment activity in the U.S. The busiest industrial fields for such activity are expected to be petroleum, chemicals, food, primary and fabricated metals, lumber and paper, electrical machinery, electronics and nonelectrical machinery. These are the same fields in which foreign direct investment has been significant in the past.

Massive direct investment in the U.S. by the Middle East oil-producing nations is not considered likely through 1980. While Saudi Arabia, Kuwait and Iran will have the greatest potential for undertaking such activity, the bulk of their long-term activity is expected to be directed into government and corporate securities and portfolio purchases of corporate equities. Direct investments will be limited, for the most part, to income-earning real estate and selected purchases of minority shareholdings in industrial and financial corporations. These corporate acquisitions will be made to gain specific technological, managerial and financial expertise required by Middle East investors for domestic development and effective worldwide utilization of their surplus funds.

The interviewers found, not surprisingly, that the dollar devaluations of 1971 and 1973 played a major role in foreign investment decisions since they created a huge expansion in the ability of foreigners to purchase U.S. real assets. But it was not merely the fact of the currency realignment that brought the dramatic increase in investment activity. The swiftness of the increase in foreign purchasing power, coming after a long period of relative undervaluation, had a strong psychological impact on corporate investors, particularly among the Japanese and some of the less conservative European managements. This "rush-to-invest" psychology was reinforced by the optimistic investment outlook shared by a great many foreign corporate managements riding a simultaneous boom cycle in the world's major economies—a psychology subsequently dampened by the Arab oil crisis in late 1973 and worldwide recession in 1974-75.

Both an "offensive" and "defensive" attitude was found among foreign corporate managers as they weigh plans to establish or acquire U.S. affiliates. The managers simply cannot ignore the size of the U.S. market in virtually every industrial sector. To some, planning aggressive expansion, this represents opportunity to exploit favorable conditions; to others, facing unfavorable conditions at home or elsewhere, a move to the U.S. is almost a forced alternative. In many cases, the impulse to invest in the U.S. is seen as having both offensive and defensive elements.

Foreign corporations, contending with leftward trends in governments and among their workers, have responded with efforts to lower their risk exposures through geographic diversification. For this purpose the U.S.—because of its size, political stability, and generally favorable attitudes toward free enterprise—has been a most desirable location. Foreign corporate managements repeatedly spoke of the U.S. as the "last bastion of capitalism" or the "last stronghold of free enterprise." When asked if they had made direct investments in the U.S. solely on the basis of the relatively lesser political and economic risks, most executives replied in the negative. But when these considerations were combined with other incentives, such as potentially large markets, they tended to be decisive.

The closing of the labor cost gap between the United States and other industrial nations was not considered to be a decisive factor in moving productive facilities into the U.S., though it was regarded as an added incentive. Some corporate decision-makers explained that labor cost considerations, while growing more important, could not be used as a basis for action because of the difficulty of predicting future relative trends in productivity and wage increases. Cost considerations, in fact, were given only secondary importance by most investment decision-makers.

A German manager contended: "The impact of dollar devaluation on production costs has not been a reason at all in our investment decisions. Neither have labor costs. Who can tell whose currency and wages will be higher in ten years? German companies must be active in America because Americans are active everywhere else."

Several German executives remarked further on the overriding importance, for them, of keeping up with American standards. One said: "Without being able to compete successfully with highly efficient and progressive U.S. firms for the American customer, industrial companies based in other countries would inevitably fail in their efforts to maintain their business posture in other industrialized countries as well as in their own home markets." Another made the same point: "Indications of future sales trends and of technological changes or product innovations can be recognized much earlier by companies well integrated into Ameri-

can business life compared to those trying to compete from abroad and having to orient their market strategy and development programs on domestic indicators only."

The bulk of Canadian direct U.S. investment has been concentrated among a small number of large firms in primary resource industries, and future activity is expected to be heaviest in these industries. Japanese foreign direct investment activity has been concentrated in the service sector, as corporations have moved outward mainly to support export expansion or to provide control over raw material sources. Essentially this is an adaptation to negative economic pressures on the Japanese economy rather than an affirmative-looking strategy to exploit positive advantages offered by U.S.-based operations.

The Arthur D. Little team reported the following comments from the Netherlands as helpful in explaining the investment attitude of Dutch business executives:

"We plan to step up investments in the United States. In recent years we've been somewhat dissatisfied with our U.S. performance, and this has probably been due to a presence which is too small to fully exploit market opportunities. Therefore, we'd like to broaden our U.S. product line through further acquisitions in known fields. We'll be focusing on improved profit performance rather than sales expansion just for expansion sake."

"Labor in Holland has simply become too expensive. Rather than expand domestic plants, we'll probably move into the United States."

"Our company is planning a major expansion in the United States over the next three years or so. We'll be looking mainly to reduce our vulnerability to business cycles, spread our risks a bit more, and enter new markets with above-average growth potential. Return on sales in our U.S. operations has been significantly above our operations in Europe in recent years. We like to operate with local participation in the United States."

The attitude in Switzerland toward direct investment in the U.S. is reflected in several personal comments made to the interviewers. A director of a major Swiss industrial company declared: "At the present time we only have a servicing facility in the U.S. This was a satisfactory arrangement until 1972. With the Swiss franc appreciation, we now have a 30 percent competitive disadvantage in exporting to the U.S. Furthermore, because of the complexities of our product line, we have found that our American customers cannot provide us a continuing supply of orders unless we have a U.S. production operation. We have been evaluating such an investment on and off for the past five years. The market potential looks favorable but the investment required is huge. We will probably delay any such investment until the overall economic environment is more certain. This is a particularly difficult decision for us in light of a major direct investment we made in the U.S. in 1929 and lost."

A president of medium-sized Swiss company commented: "Our product is highly technical. We found that a distributor could not properly service and protect our brand name. Although the U.S. is only 5 percent of our business, we established a new subsidiary in 1970 and expanded it in 1973. However, I don't know if we will increase our investment. The U.S. market is much more difficult than the European market. The U.S. customer expects more servicing than the European customer and doesn't think twice about cancelling orders."

The impulse to invest in the U.S. is seen as having both offensive and defensive elements.

Interviews in Britain tended to emphasize the importance of foreign investment activity as a response to current domestic problems. The British were seen also as the most aggressive in undertaking recent major acquisitions. This is regarded as partly due to the close familiarity of the British with the American business scene. But the apparent British ability to make corporate decisions more rapidly than their Continental neighbors is also a factor here. In one classic case, British management learned, in the space of two weeks, that a retail business was available, decided to make an offer, processed the papers, raised the capital and made the offer leading to the purchase. A London banker commented: "The British can move as fast as the Americans when they want to."

The managing director of a British machinery firm explained an acquisition in terms regarded as typical: "We wanted to expand our U.S. sales, but exporting was out of the question because of the transportation costs for our product and because we knew customers would be unhappy without a local delivery and servicing capability on our part. Ultimately it came down to a question of 'if we can't produce in the United States, then we can't sell there.' But we didn't want to spend five years building up a decent sales and servicing network. So we looked for someone in the United States who had compatible management and the facilities we needed."☆

Investment Study Ready

The Commerce report to the Congress, "Foreign Direct Investment in the United States," is now available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Volumes 1 and 2, the Secretary of Commerce's report, comprising the general analysis, conclusions and recommendations, and a 132-table benchmark survey, are being offered as a unit at $6. The other volumes, containing 18 appendices, may be purchased for $30.25 or at the following individual prices:

Volume 3, on Industrial and Geographic Concentration of Foreign Direct Investment, $4; Volume 4, on five areas: Energy, Selected Natural Resources, Commercial Fisheries, Grain Trade, and Banking, $2; Volume 5, on Investment Motivation, Financing, and Management and Labor Practices, $7.

Volume 6, on Taxation, $4; Volume 7, on Federal and State Law, $5.40; Volume 8, on Foreign Investment in Land, and Land Law, $4, and Volume 9, on Policies and Laws of Other Countries, Transfer of Technology, Accounting, Federal Agency Sources of Data, and a Bibliography, $3.85.

Energy Digest

GOING UNDERGROUND . . . The Philadelphia Electric Co. is now working under a $226,000 contract awarded by the Energy Research and Development Administration to evaluate the economic and technical viability of various underground power transmission systems. This study is of special significance, as researchers predict it will be necessary to transmit large blocks of power into densely populated urban centers for use in homes, businesses and industry. Underground cables may be the only alternative in congested areas. By 1985 it is possible that there will be large "energy parks" generating over ten million megawatts of power located 40 to 100 miles from major electric consumers.

SYNTHETICS ON THE WAY . . . An energy expert predicts that synthetic gaseous and liquid fuels from coal and other fossil sources may achieve significant commercial development in the United States despite complex investment, regulatory, and legislative barriers. Jack Huebler, of the Institute of Gas Technology in Chicago, said "On behalf of synthetic fuels, it is easily shown that, starting with the same coal source, the advantage of the much higher conversion efficiency, the higher load factor associated with a cheaply storable product, and the much lower transportation and distribution costs, synthetic pipeline gas—or synthetic fuel oil—is a much better buy than electricity for heating loads even though the utilization efficiency of the synthetic fuel is less than that of electricity."

LENDER'S INSURANCE . . . ERDA has issued regulations governing the geothermal loan guaranty program—the first federal loan guaranties aimed at speeding-up the commercial development of an energy resource. The program is designed to spur the flow of credit necessary to permit reservoir developers and electric utilities to undertake geothermal projects. A total of $200 million in loans is expected to be guaranteed during the next twelve months. "The program provides financial insurance for the lender," according to ERDA Director Dr. Robert C. Seamans Jr. "This goes hand-in hand with the technical and research help which ERDA provides to the borrower." The Manager of ERDA's San Francisco Operations Office will evaluate and process all guaranty applications. A copy of the final regulations and more detailed information on the geothermal loan guaranty program is available from Robert D. Thorne, ERDA Operations Office, 1333 Broadway, Wells Fargo Bldg., Oakland, Calif. 94612 (415-273-7881).

ELECTRIC EYEBALLS . . . Plastic "eyeballs" that follow the sun may become a new way to tap solar energy under a development program sponsored by a British unit of ITT. The Standard Telecommunication Laboratories in Harlow, England, are developing the "eyeballs," which are basket-ball sized spheres containing lens arrangements that focus sunlight on solar cells which then generate electricity. All components are sealed inside the "eyeballs," which float on a bath of water. Each of the "eyeballs" can generate up to one volt, but more can be generated by using several together. STL researchers emphasize that the device is still under development, and cannot forecast when it might be offered for sale. However, they estimate that, for a peak output of one kilowatt (the consumption of the burner on an electric stove), the installed cost would be from $650 to $1,000.

SOLAR BOILER . . . The first U.S.-built power plant boiler designed to be heated by sunlight will be tested in France this summer at the world's largest solar energy test facility, under a new agreement between the U.S. and France. The boiler already has been tested satisfactorily under electrically-simulated solar conditions in a facility at ERDA's Sandia Laboratories in Albuquerque. France will provide experienced operators and use of the unique facility for the test without charge, while the U.S. will provide the boiler and the necessary ancillary equipment. The two countries will share the data resulting from the testing, which will be conducted from June through August. By late 1980, ERDA expects to have in operation a pilot plant that uses boilers heated by concentrated sunlight to produce steam to drive a conventional turbine and generate 10 megawatts of electricity. Ten megawatts is approximately enough power to serve a town of 10,000 population.

NUCLEAR QUALITY ASSURANCE . . . The Nuclear Regulatory Commission staff is planning a comprehensive, independent assessment of its activities related to the review, approval and inspection of quality assurance programs at commercial nuclear power plants. The study will be conducted by Sandia Laboratories of Albuquerque.

Credibility Issue Seen Crucial To U.S. Firms

ENERGY CRISIS REVEALS PUBLIC'S SKEPTICISM; GIVES BUSINESS CHANCE TO RESTORE TRUST

Secretary of Commerce Elliot L. Richardson gave his views on the energy situation and the challenges and opportunities it offers to American business at the National Energy Forum held recently in Washington's Shoreham Americana Hotel. He sees it as a chance to restore the highest ethical and moral standards to the conduct of business.

Other issues come and go in the newspaper headlines, but energy is there almost daily—and may continue to be for decades.

It is the nature of this hydra-headed beast that there are simply no sure-fire, one-shot solutions that can slay him. Indeed, there's no such thing as a single energy problem. Instead, we are confronted with a whole complex of interlocking problems:

—technical, legal, economic, environmental and human problems;

—in the time span: long-, short- and intermediate-range;

—and both domestic and international in scope.

There's hardly an equation involving human existence in which energy is not a major factor.

The success of any policy or program depends, in the final analysis, on the people's understanding, trust, cooperation and support. Nowhere is this truer than in the case of energy. Its pervasive nature, threading the whole fabric of the lives of our people, makes public support the essential ingredient of the whole national effort. We need the individual's cooperation in conserving energy because every individual is an energy consumer; and we need public support for the right policies and programs both because cooperation is needed for their success and because many involve the expenditure of tax dollars.

But to merit public support, we first need public understanding. We can hardly expect people in this era of participatory democracy to accept some of the hard choices and inconveniences required by the situation without a thorough understanding of the whys and wherefores.

And what is the public perception of the energy problem?

Opinion surveys by the Federal Energy Administration reveal a disturbing picture.

Most people, it seems, do understand that the problem in general is one of supply and demand: that energy resources are "being used up;" that there is "wasteful usage" of energy; that there is a "need to conserve."

And they seem to favor measures—especially in the abstract—that promote energy conservation. They say they want more specific information on how they can save energy. They like the idea of appliance labeling, for example, and information on the fuel efficiency of autos.

But take the latter: For a time last year, it looked as though the trend to sub-compact cars was headed nowhere but up. Today, their percentage of sales has declined significantly.

Or take carpooling, a measure that would provide some of the most significant savings of all. A recent survey showed only 10 percent of the people carpooled to work, while 69 percent drove their own car—alone.

Gluttony back in style

Today, gasoline is being consumed at a rate more than 7 percent higher than last year.

As *The New York Times* commented recently, "The simple and regrettable fact is that the United States has fallen back onto the carefree energy-consuming binge that only the shock of the Arab oil embargo succeeded in interrupting in 1973."

The memory of the long lines at the gas stations that winter seems to have faded completely from the public consciousness. Surveys indicate that only five percent of the people realize that the heart of the energy problem is U.S. dependence on foreign sources of oil. This, despite the fact that imports of foreign oil now represent about 40 percent of U.S. consumption, up from 36 percent when the oil embargo began in 1973.

During one week in March this year, for the first time in this nation's history, it imported more crude oil and petroleum products than it produced. For the past six years, domestic production of crude oil has declined steadily. It is around a million barrels a day lower now than it was at the start of the embargo.

But the most disturbing of all the findings about public attitudes was the skepticism and cynicism among the American people.

In recent panel discussions conducted by the Gallup Organization, even those who accepted the reality of an energy problem felt that they had been manipulated and exploited. Some blamed the "oil companies." The view was expressed that the crisis was concocted in order to get gasoline prices raised. The abundance of fuel now that the increases are in effect was cited to support this view.

Other panel members criticized what were termed "ineffective or counter-productive" government policies.

Feel they've been 'had'

"But virtually everyone," a report of the discussions said, "felt that in some way they had been 'had.' Thus a general suspicion of being constantly lied to pervaded much of the discussions."

Such attitudes, the report concludes, emphasize the need for a "meaningful, credible explanation" to the people of the energy problem. The report adds:

"Without progress on this level, the prospects for success of any long term energy conservation campaign must remain dim."

Of all the problems we face in the energy area, this seems to me the most serious.

We can continue to supply more information on energy saving measures for the householder and the driver and we can continue to promote conservation by industry—which already is effecting very substantial savings. We can legislate pricing policies that encourge exploration for oil and gas on the Outer Continental Shelf. We can step up development of our vast coal deposits. We can provide the environmental safeguards for these activities. We can launch great scientific

MORE THAN EVER *Despite repeated warnings and appeals for conservation, imports of foreign oil now represent about 40 percent of U.S. consumption, up from 36 percent when the oil embargo began in 1973. Only 10 percent of U.S. workers are in carpools, and gasoline consumption is up 7 percent above last year.*

and technological projects to ensure development of energy sources for the long-range.

None of these are simple or easy or can be done overnight. Vast resources and skills are required. But they all represent the kind of challenge this nation has been meeting successfully for two centuries.

The problem of credibility, however, is of a different character and scope. And it is not confined just to energy but includes policies and issues of all kinds, and extends beyond government and business to many other institutions.

We don't have the evidence that opinion polls throughout our history could provide, but I question whether at any time during the nation's entire existence public confidence and trust in our institutions has been at such a low ebb. And I'm afraid the reason is all too clear: The wounds inflicted on faith and trust during the Vietnam War and Watergate were unprecedented. And they have left deep scars on the public psyche.

The only remedy

There is, of course, only one remedy: the healing balm of truth. The plain truth. The truth that can't be bought and sold. And no half truths that are passed off for the whole truth.

In the case of government, in both the executive and legislative branches, the credibility problem must be addressed by all of us in the political arena. Indeed, we can't escape it. The current Presidential campaign has obviously revealed it as an issue uppermost in the minds of the voters.

But as the highest public official charged with responsibility for promoting the vitality and continued success of free, competitive enterprise, I want to urge business leaders to address themselves also to this critical problem. And I'm not talking about just credibility, but the whole problem of ethical and moral standards, which are so critical to the public's perception of business.

I have been dealing with one aspect of this problem as chairman of the President's Task Force on Questionable Payments Abroad. All of the business leaders I know, especially those who have engaged in making such payments for competitive reasons, are deeply disturbed by this whole affair. They know that the image of business has suffered a heavy blow, and they are ready and anxious to take strong corrective measures through international codes of conduct that create fair rules fairly applied to all.

But let me ask a fundamental question: Why this concern? Why are business leaders so concerned today about the image of business? What has it got to do with production or marketing or research and development or manufacturing or transportation or any other aspect of business operation?

I believe this concern has taken on a new dimension for a very fundamental reason. It is that if the Republic is to continue to enjoy the progress that has characterized its history for two centuries, the burden of national leadership must be more fully shared between the private and public sectors. I believe that among those in the private sector, business leaders are perhaps best able of all to shoulder a far greater share of this burden.

I think we all know what is behind the need for this more fully shared leadership: The new realization that the Federal Government is simply unable to meet the growing multitude of responsibilities generated by the complexities of advanced industrial society.

Government can't do it

Try as it might—and it does try—government is unequal to the task—no matter how big it gets, how many bureaus it creates, or how much red tape it spins out. Indeed, it often just adds to the chaos. It can waste resources. Some of its proliferating rules and regulations can stifle innovation. And the billions of dollars it spends don't always achieve their purpose.

All of this means, I think, that we must have more self-government—in the literal sense of the word—by both individuals and the various parts of the private sector. In the case of business, its primary responsibility is above all to ensure the ethical basis of free enterprise. For nothing quite so endangers this great system as the mistrust of business by the American people.

Every case of price fixing, every instance of bribery or kickbacks, every case of fraud, diminishes the stature of business. The threat to free enterprise does not arise from the fuzzy arguments of radical economics theoreticians who would substitute state socialism. Rather, it comes from those few businessmen whose actions degrade their profession and sow suspicion of all business.

I am not sure what the remedies are. But I believe that the leaders of business must realize more fully the critical importance to the nation's future of the conduct of the business community.

American business is far more than a supplier of goods and services. It is more than the segment of the economy that we rely on to solve the difficult problem of energy. It is more than the collective activities that will help lead the development of the world economy.

Greater than all these is business' responsibility to help maintain the moral and ethical standards of the American nation. To the degree that business sets this as its highest goal, we can be confident, I believe, of the survival and advancement of the democratic ideal into the third century of the Republic.

ENERGY COUNCIL SEES SAFE NUCLEAR WASTE DISPOSAL POSSIBLE

The United States should be able to safely handle radioactive wastes resulting from needed expansion of U.S. nuclear power plant capacity, according to the President's Energy Resources Council (ERC), of which Secretary of Commerce Elliot L. Richardson is chairman. The Council's recommendations are contained in a status report on *Management of Commercial Radioactive Nuclear Waste,* which was submitted to the Joint Committee on Atomic Energy. The Council sees the state of technology and the Federal Government's nuclear waste management programs as assuring the safety of nuclear power.

The Council consists of representatives of the Council on Environmental Quality, the U.S. Geological Survey of the Department of the Interior, the Environmental Protection Agency, the Energy Research and Development Administration and the Federal Energy Administration, as well as the Commerce Department. Its main function is coordinating Administration policies and programs relating to energy. The report's principal conclusions are:

- It is scientifically and technologically feasible to manage commercial radioactive wastes in a safe manner.
- The Federal Government has accepted the responsibility for assuring the safe and environmentally sound management of nuclear wastes through a recently-accelerated, comprehensive government waste program.
- Radioactive waste volumes are small compared to other wastes produced in this country. Thus, even substantial costs that could be required for careful disposal of such wastes will not have considerable impact on the cost of nuclear-produced electricity.

Because of the need to reduce dependence on insecure sources of imported oil, and the United States' limited ability to expand oil and gas production, the Council urges a substantial increase in the use of domestic coal and nuclear power. Radioactive wastes are an inevitable byproduct of nuclear energy production, and must be carefully processed, handled and isolated from the public until radioactivity decays to harmless levels. In the case of some of these wastes, it will take thousands of years for radioactivity levels to fall to those of naturally occurring materials.

High-level radioactive wastes must be delivered to federal repositories for long-term management, while low-level radioactive wastes may be disposed of by near-surface land burial in designated commercial burial grounds.

The base technology for safe radioactive waste management is documented, the report points out, in a comprehensive study from the Energy Research and Development Administration on *Alternatives for Managing Wastes from Reactors and Post-Fission Operations in the LWR Fuel Cycle.* The ERDA study concludes that reprocessed high-level liquid waste could be solidified into stable solid forms such as glass, as has been demonstrated in pilot plant projects. The solidified wastes can then be encapsulated in containers and safely stored in known stable types of geologic formations such as salt beds, salt domes and granite. This multiple barrier isolation of the wastes would require little subsequent care.

The record of the United States in managing radioactive wastes over the last 30 years includes both favorable experience and instances where problems have occurred. While there have been no discernible health or safety effects on the public from these activities, the experience gained should minimize problems when large-scale operations begin.

To fulfill its responsibility of assuring the safe and environmentally sound management of nuclear wastes, the Federal Government has drawn up a plan for:

—Extensive environmental assessments and impact statements, prior to decisions on reprocessing, recycle, waste forms, storage modes and packaging criteria;

—Selection of specific technologies for waste solidification;

—Selection and qualification of waste terminal storage sites;

—Demonstration and completion of technical development for commercial scale operations;

—Completion of environmental, safety and related regulatory standards, criteria and reviews to assure acceptable radioactive waste management practices; and

—An interagency task force to coordinate these activities among the responsible federal agencies.

The federal agencies represented on the Council are conducting a program to provide nuclear waste terminal storage facilities as they are needed. ERDA is responsible for development of technology and for establishing and managing the waste repositories; the Nuclear Regulatory Commission, for establishing and managing safety and environmental criteria, and for licensing and inspection of storage facilities; the Environmental Protection Agency for establishing general environmental standards for waste disposal; the U.S. Geological Survey for advising on storage sites; and state governments for overseeing low-level waste disposal and storage facilities, by agreement with the Nuclear Regulatory Commission.

U.S. URANIUM SUPPLY CALLED ADEQUATE

This country won't be running out of uranium in the foreseeable future, and perhaps never, a recent government study concludes.

U.S. uranium resources are estimated to be sufficient to supply all existing and planned nuclear power plants, plus any additional reactors which may be placed into service by 1990, over the lifetimes of the plants.

This good news for the nuclear power industry was contained in a report recently released by Secretary of Commerce Elliot L. Richardson, Chairman of the President's Energy Resources Council.

The ERC report, adds, however, that timely expansion of industrial mining and milling of uranium is necessary to avoid any short-term supply problems.

Richardson said the adequacy of the nation's uranium supply is of particular concern to utilities and state regulatory commissions faced with pending decisions as to the type of generating capacity needed to serve the growing demand for electricity.

The report, *Uranium Reserves, Resources, and Production,* cites a recent estimate of the Energy Research and Development Administration, which indicates the existence of a total of 1,840,000 tons of economically recoverable uranium oxide in the form of proven reserves and probable resources.

Noting that this quantity is a prudent resource base for planning nuclear power plant construction programs, the report concludes that it will support at least 300 large nuclear plants over their 30-year lifetimes, a figure exceeding the number of plants expected to be in operation by 1990.

The average 1,000 megawatt nuclear power plant consumes from 4,000 to 6,000 tons of uranium throughout its 30-year lifetime.

The report notes that sufficient uranium resources to supply plants built after 1990 will depend on expanded exploration by industry, and on the development and introduction of nuclear reactors with improved efficiency, such as breeder reactors which generate more fissionable fuel than they consume.

In addition to the proven reserves and probable resources there are an estimated 1,860,000 tons of possible and speculative uranium believed to exist. Substantial additional quantities of lower grade ore exist, but are recoverable only at higher cost.

In order to reduce uncertainty as to the magnitude of the resource base, two of the Energy Resources Council's member agencies—the Department of the In-

terior's U.S. Geological Survey and the Energy Research and Development Administration—are engaged in extensive evaluations of domestic uranium resources. ERDA is also sponsoring a broad research and development program aimed at demonstrating by 1987 the safety, reliability and environmental soundness of breeder reactors.

According to the report, use of commercial breeder reactors would make uranium the country's most abundant energy resource and would expand the ability to utilize present uranium resources by a factor of about 70.

Current estimates indicate that the annual demand for natural uranium will double within the next ten years and will double again during the following decade.

Noting that significant expansion of uranium mining and milling capacity will be necessary to support expanding the U.S. nuclear plant program, the report points out that historically uranium production has been capable of rapid expansion, and adds that recent industry announcements give cause for optimism that expansion of mining and milling capacity will be adequate.

The report was prepared jointly by ERDA, the Council on Environmental Quality, the Department of Commerce, the Department of the Interior, the Environmental Protection Agency, and the Federal Energy Administration.

Weights And Measures Conference To Highlight Metric Conversion

America's impending transition to the metric system will highlight the 61st annual National Conference on Weights and Measures, July 12-16 at the Shoreham-Americana Hotel in Washington.

Metric topics will include training, conversion progress in industry, guidelines for consumer items, terminology and practice of metric units, and government activities.

"Probably at no time in the entire history of the National Conference on Weights and Measures has there been a single issue of greater magnitude and eventual impact," stated Richard L. Thompson, chairman of the 61st Conference. Thompson is chairman of the Weights and Measures Section, Maryland Department of Agriculture.

The Conference brings together weights and measures enforcement officials on the state, county and muincipal levels, along with representatives of business, industry, trade associations and consumer groups. The Conference develops model laws, regulations and handbooks for possible adoption by state and local governments.

In a special observance commemorating the 75th anniversary of the National Bureau of Standards, the Conference will meet July 15 at NBS headquarters in Gaithersburg, Md. John Byington, recently appointed chairman of the Consumer Product Safety Comimssion, will be the featured speaker at the NBS session.

The metric theme for this year's meeting was provided last December when President Ford signed the Metric Conversion Act, which established as national policy the encouragement and coordination of a voluntary changeover to the metric system.

The Act established a 17-member U.S. Metric Board, to be appointed by the President. One of the members will be selected from a list of qualified individuals recommended by the National Conference on Weights and Measures and standards-making organizations.

The Act also instructs the Secretary of Commerce to consult with the National Conference on Weights and Measures to assure that state and local weights and measures officials are "appropriately involved in metric conversion activities" and are assisted in efforts to amend weights and measures laws.

The agenda will include setting a timetable for developing model codes for regulating weighing and measuring devices that are strictly metric. Another item is the issue created by the introduction of automated processes to supermarket inventory and checkout systems.

New Chart Shows World Hot Spots

A Commerce agency is mapping out the hot spots all around the world for businessmen. While this particular map may not improve their social lives, it should be a definite asset in helping them to avoid locating a plant atop a future volcano.

The first of its kind, a map showing the amount of heat flow from the earth's interior, and the locations of active volcanoes and earthquake epicenters, has been issued by Commerce's National Oceanic and Atmospheric Administration (NOAA).

The map is also expected to have wide appeal to scientists and teachers, since it indicates where heat flow measurements have been taken and the approximate heat flow value at each of about 5,500 measurement sites. The map also shows a general correlation between high heat flow and locations where geothermal energy is being produced or is likely to be produced.

The outgrowth of research by scientists of many nations over the last several decades, the map is the product of the World Data Center for Solid Earth Geophysics, operated by the National Geophysical and Solar-Terrestrial Data Center in Boulder, Colo. The center is part of NOAA's Environmental Data Service.

Closely related to heat flow are active volcanoes and earthquake epicenters. The earthquake areas mark lithospheric plate boundaries where two plates interact with each other, such as mid-ocean ridges, fracture zones, trenches, and areas of mountain building. The volcanoes occur for the most part where one plate underthrusts another close to oceanic trenches, such as the Aleutians or South America, where new crust is being formed as at mid-ocean ridges, and some intra-plate islands such as Hawaii.

Copies may be ordered for $2.50 each from the Distribution Division (Code C44), National Ocean Survey, Riverdale, Maryland 20840. Checks should be made payable to NOS--Department of Commerce, and foreign remittance should be made either by international money order or check payable on a U.S. bank.

Business Plans '76 Capital Spending Of $121 Billion

U.S. business plans to spend $121 billion for new plant and equipment during 1976, 7.3 percent more than in 1975, according to a recent survey by Commerce's Bureau of Economic Analysis.

Spending in 1975 was $112.8 billion, 0.3 percent above 1974. The latest 1976 projection compares with $120.1 billion, or a 6.5 percent increase, reported earlier.

Actual outlays in the first quarter of 1976 rose 2.6 percent from the fourth quarter of 1975 to a seasonally adjusted annual rate of $114.7 billion. Plans call for a 5.6-percent rise in the second quarter and smaller rises in the second half of the year: 1.5 percent in the third quarter and 1.1 percent in the fourth.

These data are not adjusted for price changes. If businessmen have reflected the recent 6.5 percent annual rate of price increases in their latest spending projections, very little increase in real investment is indicated by the survey results.

PRODUCTIVE CAPACITY USE AT 18-MONTH HIGH

U.S. manufacturing plants were using more of their capacity during March than they had for the prior 18 months.

The national rate of manufacturing capacity utilization was 82 percent, 3 points higher than December, according to a late April and May survey by Commerce's Bureau of Economic Analysis.

Increases occurred in all major industries, but were larger in durables than in nondurables. The March rate was 7 points above the rates in March and June of 1975, but 4 points below the peak of 86 percent in March and June 1973.

Usage of capacity in motor vehicles rose 11 points, to 98 percent, as automakers stepped up output of large- and intermediate-sized models. Partly reflecting the step-up in motor vehicle production, primary metals rose 9 points, to 78 percent. Other increases in durables included stone, clay, and glass (6 points), electrical machinery (3 points), and nonelectrical machinery (3 points).

In nondurables, the rate of capacity utilization increased 5 points in rubber, to 86 percent; 4 points in paper and textiles, to 89 percent; and 3 points in petroleum, to 94 percent.

Large firms, with assets of $100 million and over, reported a usage rate of 84 percent. Medium- and small-sized firms reported 78 and 76 percent, respectively. Primary-processed goods industries reported a 5-point rise, to 83 percent, and advanced-processed goods a 2-point rise, to 81 percent.

The survey—conducted quarterly—asks manufacturers for actual and preferred rates of capacity utilization for the last month of each quarter. The survey has been conducted annually since 1965 and quarterly since 1968.

Manufacturers' Capacity Utilization Rates

(Seasonally Adjusted)

	Operating rates (percent)							
		1974			1975			1976
Industry and asset size	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
All manufacturers	84	84	78	75	75	79	79	82
Asset size:								
$100 million and over	87	87	80	77	76	80	80	84
$10 to $99.9 million	83	81	75	73	75	77	76	78
Under $10 million	79	77	72	70	72	73	74	76
Durable goods[1]	84	84	76	74	73	78	77	81
Asset size:								
$100 million and over	85	87	79	77	75	80	78	84
$10 to $99.9 million	83	82	75	72	71	74	73	76
Under $10 million	77	76	68	66	67	70	70	74
Primary metals	90	90	82	79	69	74	69	78
Electrical machinery	85	83	78	73	71	73	75	78
Machinery, except electrical	88	89	87	84	82	84	81	84
Transportation equipment[2]	80	83	71	71	73	81	78	85
Motor vehicles	87	92	70	73	80	93	87	98
Aircraft	69	71	72	68	64	65	64	66
Stone, clay, and glass	81	81	70	68	67	74	72	78
Nondurable goods[3]	85	84	80	76	78	80	81	82
Asset size:								
$100 million and over	88	87	83	77	79	81	83	84
$10 to $99.9 million	82	80	76	75	78	80	79	81
Under $10 million	80	78	75	74	77	76	77	78
Food including beverage	81	79	77	77	79	77	76	77
Textiles	87	80	69	69	76	83	85	89
Paper	93	94	84	74	76	81	85	89
Chemicals	86	86	81	72	72	75	78	80
Petroleum	92	89	90	87	87	91	91	94
Rubber	88	86	77	65	74	78	81	86
Primary-processed goods[4]	87	86	79	75	73	78	78	83
Advanced-processed goods[5]	83	83	77	75	76	79	79	81

1. Also includes producers of lumber, furniture, fabricated metals, instruments, and ordnance and miscellaneous manufactures.
2. Also includes producers of other transportation equipment.
3. Also includes producers of tobacco, apparel, printing and publishing, and leather.
4. Includes producers of lumber; stone, clay, and glass; primary metals; fabricated metals; textiles; paper; chemicals (at ½ weight); petroleum; and rubber.
5. Includes producers of furniture, electrical machinery, machinery except electrical, motor vehicles, aircraft, other transportation equipment, instruments, ordnance and miscellaneous manufactures, food including beverage, tobacco, apparel, printing and publishing, chemicals (at ½ weight), and leather.

Tiny Research Sub Seeks Answer To Sludge Problem

Ocean-dumped sludge, so much in the headlines lately, will be the target of a tiny Commerce-sponsored research submarine in dives later this month.

Between now and August 1 a two-man research submarine will be operating off the northeast coast in studies ranging from the geology of potential offshore oil drilling sites to the ecology of fish.

This General Oceanographics sub is carrying scientists down to 1,000 feet below the ocean surface under contract with Commerce's National Oceanic and Atmospheric Administration (NOAA). The program is conducted in cooperation with the U.S. Geological Survey and the Army Corps of Engineers.

In mid-July, biological studies of ocean dumping sites will be carried out by Gilbert Chase of the Corps of Engineers, stationed at Waltham, Mass. His work involves dives on the Brenton Reef ocean dumping site and the Rhode Island Sound shelf area.

Dr. George Freeland of NOAA's Atlantic Oceanographic and Meteorological Laboratories, Miami, will gather geological and biological information on the seafloor of the New York Bight in dives in late July. This work is part of research in the area in connection with the Marine Ecosystem Analysis program.

Dr. David Folger, of the U.S. Geological Survey at the Northeast Fisheries Center in Woods Hole, Mass., is making geological observations in expected oil-drilling areas of Georges Bank and the Baltimore Canyon.

101 Managerial Situations Delineated In New Book

101 Managerial Situations and How To Handle Them provides information for middle- and upper-level managers on how to obtain greater productivity, improved efficiency and heightened employee cooperation.

The book, by management consultant William Wachs, presents 101 real-life business situations, each followed by a thorough discussion of the problem, a number of alternative ways to approach it and a variety of ideas on how businessmen can prevent similar difficulties from arising in the future.

The 231-page book, priced at $9.95, is available from Parker Publishing Company, Inc., Attn.: Ms. Blossom K. Israel, West Nyack, N.Y. 10994.

NORTHEAST REGION SEEKS COOPERATIVE ANSWERS TO PROBLEMS

Even the rugged individualists of New England and their neighbors in the other Northeastern States have come to appreciate the benefits of cooperative economic endeavor.

Work is in progress to develop a comprehensive program for economic development of the region consisting of Maine, New Hampshire, Vermont, Connecticut, Rhode Island, Massachusetts, New York, New Jersey, Pennsylvania and Delaware.

As a result of a conference held in Albany last fall, a steering committee has been appointed to develop specific objectives for balanced economic growth in the coming year. The steering committee includes a representative from each legislature of all ten states.

The conference, sponsored in part by a grant from Commerce's Economic Development Administration, catalogued the economic troubles of the Northeast as well as its advantages, and the need for coordinated action to develop a well-ordered economic program.

The conference report pulls no punches, saying among other things:

"While other regions of the country are reaping the benefits of demographic trends and the willingness to work together, the Northeastern States are involved in an internecine competition for what appears to be an increasingly smaller portion of our nation's capital resources.

"As representatives of the citizens of the Northeast, state legislators cannot sit idly by and allow bureaucratic inertia to compound the difficulties of our region's already poor economic health.

"Relatively free of the hindrance of ponderous bureaucratic machinery and procedures, the legislatures can and must take the initiative to explore the common ground, develop the alternative responses and stimulate the implementation of innovative means of achieving balanced growth for the Northeast."

The consensus of the Conference was that the Northeast would have to respond to its critical economic problems as a region.

The conference found these advantages and disadvantages of the Northeast in attacking its troubles:

Advantages: The Northeast is adjacent to and part of one of the world's great markets, the U.S. Eastern seaboard; it has a great tradition of excellence in public and private education; it has a reputation for technological innovation; it contains extensive areas of carefully protected open space for public recreation; it has already made considerable investments to improve the quality of its environment; it has an experienced, skilled labor force; and it has a heritage of strong, responsive local government.

Disadvantages: The region's energy costs are high and increasing; the tax loads are burdensome; the labor force is comparatively older; business and industry are moving to the South and West, and productive workers and jobs follow; investment capital for the region is becoming more scarce even as the region's industrial plants are becoming obsolete.

More Firms Sought For Government Procurement

A program to aid business in selling to the Federal Government has been developed by the Department of Commerce and the General Services Administration.

The program went into effect with the signing of a memorandum of understanding between Commerce and the GSA. It involves an effort to increase opportunities for local firms to bid on government contracts and to stimulate business community interest in selected GSA procurements.

The expectation is that new sources of supply for GSA procurement will be located by using Commerce's 43 district offices, 19 satellite offices, and more than 800 associate offices.

The program is designed to benefit both government and business. The new sources of supply are expected to:

- Increase competition and lead to lower prices and a consequent savings of tax dollars;
- Expand the government's procurement base, which could be vitally important in a national emergency, and
- Bring about a more even distribution of the federal procurement dollar among businesses.

In carrying out the program, GSA will supply Commerce with a list of 200 to 250 types of specific items for which GSA believes Commerce assistance will be needed. These items will cover requirements which are repetitive in nature, on which few bids were received in the most recent procurement, and for which the most recent contract exceeded $50,000 in value.

Commerce field offices will attempt to uncover the location of new sources for GSA procurement by including announcements of the program at trade seminars and procurement conferences and in their newsletters. Assistance and encouragement will be given to possible bidders by trade specialists attached to the field offices. The trade specialists also will direct prospective bidders to the nearest GSA Business Service Center for technical assistance.

DEGREE OF DANGER CRUCIAL TO PROPOSED CLOTHING STANDARD

U.S. clothing manufacturers are keeping a close eye on a proposed standard which could seriously affect the materials and design of their products.

A flammability standard for general wearing apparel developed by Commerce's National Bureau of Standards (NBS) designed to help reduce the number and severity of burns resulting from loose, flowing clothing designs is under consideration by the Consumer Product Safety Commission (CPSC).

If the standard is adopted by the CPSC, it would mean that manufacturers of all wearing apparel, from suits and dresses to underwear and hosiery, would have to select their material and designs from criteria set out in the standard.

The thrust of the proposal is to require that fabrics of low flammability be used in garments most likely to be involved in serious injuries, and that correspondingly less rigorous requirements be set for garments less likely to be so involved.

A team of five researchers have developed a new test method for apparel based on the amount of heat transferred from a burning fabric to the wearer's body. This has become known as "the mushroom test" because of the configuration of the test apparatus.

The draft standard would require apparel fabric to be classified according to flammability (as determined by the mushroom test)and garments to be classified according to the area of the body covered and looseness or tightness of the fit.

The concept of classification is based on accident data which shows that loose-fitting, flowing garments are most often involved in fire accidents. The chances of an accident decrease with the tightness of the garment. Therefore, long, loose-fitting garments would require the safest fabric.

The draft standard would require the fabric manufacturer to test all of his material to identify its flammability class. The garment manufacturer would be required to classify his designs according to the type of fit as determined by length and width measurements, and then compare his classification with a tabulated chart listing which class of fabric he would be allowed to use.

The expectation is that it may be three years or more before a final standard would become effective, in view of the need to provide time for industry to comment and then to comply with the standard when it became effective.

DEADLY RIP CURRENTS ARE EASY TO AVOID

Much more dangerous than sharks, though not as dramatic, rip currents claim the lives of far too many Americans each summer.

Rip currents take lives because swimmers caught in them usually panic. Yet, escape from a rip current is easy—if you know what to do.

Commerce's Atlantic Oceanographic and Meteorological Laboratories in Miami, have developed five simple rules every swimmer should know:

(1) Learn to recognize a rip current;

(2) Look for them every time you go to the beach;

(3) Point them out to children and tell them about them;

(4) Avoid them if possible; but

(5) If you do get caught in one, swim parallel to the beach, and you will soon be out of it.

A rip current is a strong, narrow outflow, perpendicular to the shore, and carrying back to sea the water brought in by waves. Part of a generally circular pattern of water movement found off most long, gently-sloping sand beaches, a rip current can travel at speeds up to two or three miles an hour, constantly changing position. The same beach may have several of these currents at one time and then go weeks without any at all.

Once outside the surf zone, the rip current dies rapidly, spreads out, and often forms a large, sluggish eddy which oceanographers call a "rip head".

Rip currents usually are easy to detect once you know what to look for. Generally, the pattern of the sea surface is one of long lines running parallel to the beach. The rip current breaks up this pattern by forming a criss-cross line perpendicular to the beach. Small choppy waves sometimes form a line out to the surf zone, and often a foam line will indicate the location of a rip current.

Occasionally, when there is sediment in the water, a long brownish band of darker water may indicate a rip current.

If a rip current has been in one place for a while, there is often a short sand spit built out from the beach at the base of the rip.

If, while swimming, you notice yourself moving faster in one direction along the shore, you should expect rip currents to be developing. If while walking from the beach into shallow water there is a current pulling at your legs, you may be able to see a spot down-current where a rip is moving water seaward. Or look at the end of a jetty, groin, or other solid obstruction to the longshore movement of water, and there will probably be a rip current where the water is deflected seaward.

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Swimmers will know when they are in a rip current. The first indication is that their feet touch bottom occasionally, giving the feeling the bottom is moving fast toward shore. When their feet no longer touch bottom they find they are further out to sea than expected, or moving faster than other swimmers nearby.

This is the point where most swimmers start swimming their hardest toward the shore, making a fatal mistake. Since the current is seldom more than 10 or 20 feet wide, swimmers should swim parallel to the beach, and will very soon be out of it.

An alternative is to relax and let the rip current carry the swimmer seaward through the surf zone into the rip head where it slows down. From there, you can have a leisurely swim back to the beach parallel to the rip current.

Bulk Shippers' Needs Get National Conference

The problems and potentials of America's bulk cargo shippers will be aired at a National Assessment and Planning Conference on U.S.-Flag Shipping to be held July 12-14 at Hyannis, Mass.

The conference will: seek industry's views concerning the U.S.-flag bulk shipping industry, its problems and its potential; increase the industry's awareness of the various federal assistance programs available to it; and provide American exporters and importers with a better understanding of bulk shipping.

Participants in the conference will include government officials, ship operators and builders, importers and exporters, naval architects and representatives of financial institutions and port interests.

Case studies of actual bulk cargo business situations will be analyzed to develop constructive solutions to the problems hindering further development of the U.S.-flag bulk fleet.

The Maritime Administration, an agency of the Department of Commerce, conducts a variety of programs designed to promote and strengthen the nation's maritime industry, including financial assistance, marketing, and research and development programs to improve the competitiveness of U.S.-flag shipping.

Additional information is available from the Office of Market Development, Maritime Administration, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-3325).

Ten Counties Eligible For Economic Assistance

Ten areas in seven states have become eligible for federal financial assistance to help plan and carry out projects to stimulate economic growth and create jobs.

Commerce's Economic Development Administration has named the following high unemployment counties as redevelopment areas: Alabama: Dale County; Georgia: Hall and Wayne counties; Kentucky: Garrard County; Maine: All of Lincoln County except the Towns of Dresden and Waldoboro; Nebraska: Hayes County; South Carolina: Chester, Florence and York counties, and Tennessee: Lincoln County.

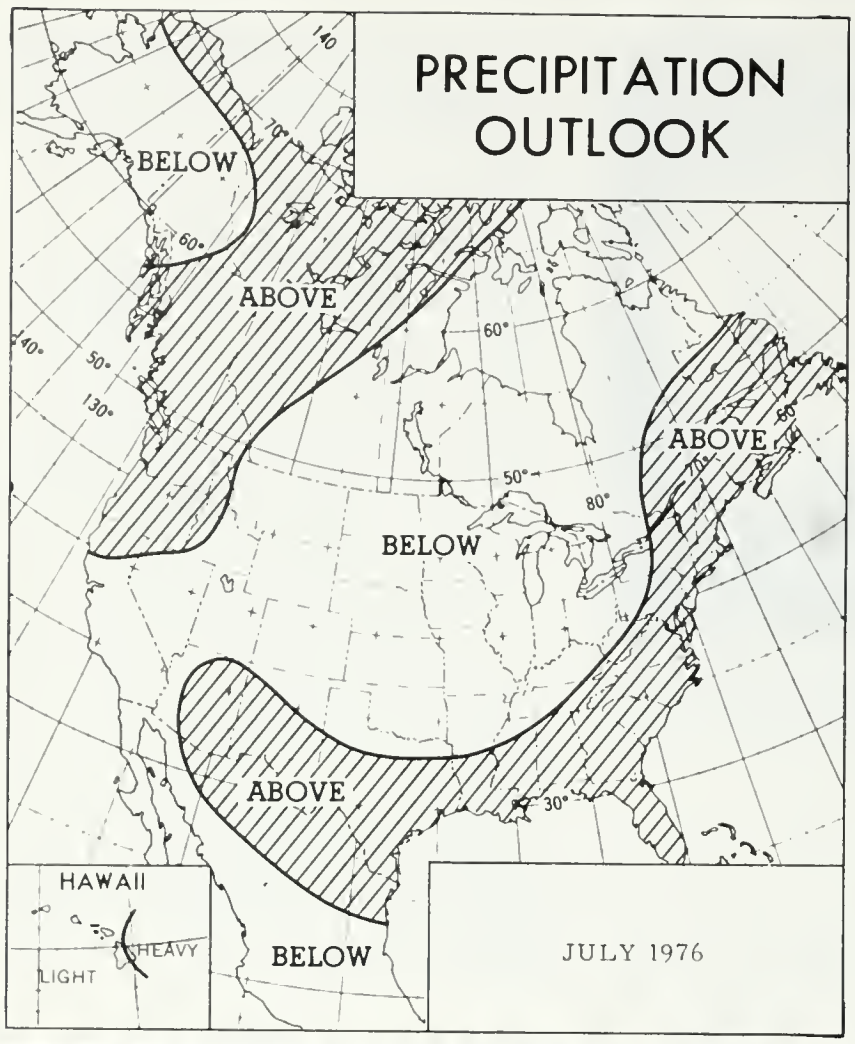
As redevelopment areas, they become eligible to participate in EDA programs to help stimulate economic growth and create new job opportunities. The programs include:

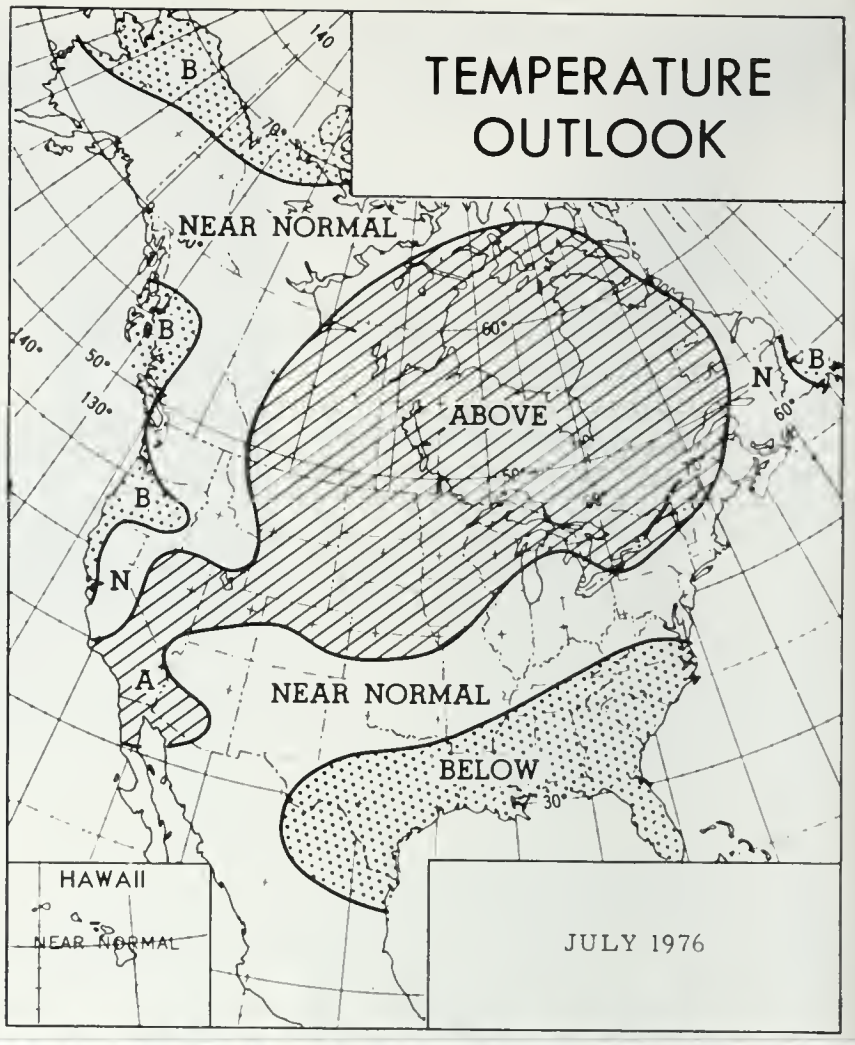
—Grants to help communities construct public facilities which are necessary to attract industry.

—Loans and loan guarantees to private businessmen to expand existing plants or to locate in areas of high unemployment.

—Planning and technical assistance to help develop resources.

In requesting designation, each area prepared an overall economic development program listing resources and job needs. Projects receiving EDA assistance must be consistent with the development program.





WHAT'S IN STORE—*Anticipated temperature and precipitation maps for the coming 30 days are published biweekly by Commerce's National Oceanic and Atmospheric Administration. These give the outlook for the coming month.*

New Device Removes Much Of The Guesswork At Sea

Much of the thrill could be going out of the sea captain's job if a recent innovation proves successful. And the captains will probably be grateful for it. Ship owners certainly will be.

A newly-developed automated sensor minicomputer information display system is expected to give sea captains greater control over their ships, provide better fuel economy, and help safeguard ships and their cargoes.

Called the Hull Monitoring System (HMS), the device was designed under a Maritime Administration contract by the Instruments and Controls Division of Technology Inc., Dayton, Ohio. A prototype is being installed for a year-long evaluation at sea.

The HMS main control console at the captain's station receives signals from sensors located throughout the ship. The minicomputer analyzes this information and reports at frequent intervals the ship's draft, trim, stability, hull stress, cargo lashing, and flooding conditions. The status of each condition is displayed on the console screen as a percentage of its design limit. In addition, the conditions are indicated by colored lights and sound alerts.

The captain can also ask questions about the ship's condition by pushing buttons on his keyboard. Answers appear on the console screen, along with recommendations. Naturally, control of the ship remains with the captain. The HMS is strictly a device to aid in making decisions.

Tax Guide On Buying, Selling A Business Updated

The third, revised edition of Prentice-Hall's *Tax Guide For Buying And Selling A Business* has just been published. The text and citations have all been updated to reflect new court decisions, rulings and regulations, and now incorporate the new Revenue Acts which have been passed since the publication of the second edition.

The volume, revised by Stanley Hagendorf, contains more than 100 major sections to help tax practitioners keep abreast of the vast changes in tax planning and its far-reaching implications. Hundreds of model forms, charts and illustrative examples are included.

Tax Guide For Buying And Selling A Business may be ordered for $24.95 from Prentice-Hall, Inc., Attn.: Ms. Blossom K. Israel, Englewood Cliffs, N.J. 07632.

Study Cites Management Education Needs of Women

A recently-published book from the AMACOM division of American Management Assn. is the first stage of a study of management education needs of women. *Women: A Worldwide View of Their Management Development Needs* contains survey and interview data on the under-utilization of women in management and at decision-making levels.

The study covers all regions of the United States and 30 foreign countries. Most of the respondents, who either owned or operated their own businesses or held middle- or upper-management positions, indicated that training of women for management positions should be done in conjunction with men. They did not feel that women should be segregated and trained separately. The specific management skills listed as most often neglected were in the areas of finance and accounting, planning and effective decision making. Two sections of the report are devoted to recommendations made by the respondents for developing women managers.

The report, priced at $7.50 for members of AMA, $10 for others, is available from AMA, 135 West 50th St., New York 10020.

Impact Of Ice, Volcanoes On Alaskan Petroleum Exploration Studied

Oil companies are awaiting the results of an investigation of the possible effects of ice movement and volcanic activity on petroleum exploration and development off Alaska.

Awards totaling nearly $4.8 million have been made to the University of Alaska for this purpose by Commerce's National Oceanic and Atmospheric Administration (NOAA).

The contracts, which continue work begun in the spring of 1975, are part of a major marine study conducted by NOAA's Environmental Research Laboratories for the Interior Department's Bureau of Land Management as a part of the Outer Continental Shelf Environmental Assessment Program. The studies seek to determine the probable ecological impact of oil exploration and development activities on Alaska's outer continental shelf.

The main purpose of the research, which is being conducted between the spring of 1975 and September 1976, is to determine the amount of stress which moving ice could exert on offshore structures, and the effects of crude oil and other petroleum-associated chemicals on marine organisms.

The researchers will also study the potential hazards of offshore permafrost and volcanic activity on oil exploration operations, and make comprehensive assessments of the marine microorganisms and bottom dwelling fishes in the Gulf of Alaska and the Bering and Beaufort Seas.

To evaluate the fracture strength of moving ice sheets against offshore grounded structures, the scientists will implant a series of pressure gauges on an ice sheet adjacent to a grounded ice floeberg located about 100 miles northwest of Point Barrow, Alaska.

As the ice pack crushes against the floeberg, ice stress buildup and motion will be recorded until the gauge is destroyed. Data from the experiment will be used to place lower limits on the required strength of manmade structures such as offshore oil rigs to be placed in the ice-bound waters.

The research team will study the activity state and potential environmental hazard of two Cook Inlet volcanoes, Redoubt and Augustine. Both could pose a major hazard to oil development in the Gulf of Alaska area.

The project also involves adding 11 short-period seismic stations to an existing network to lower the detection threshold of earthquakes to Richter magnitudes of two or three. Six stations will be installed on Kodiak Island, two in the lower Cook Inlet, and three in the Katmia-Alaska Peninsula area.

Results from the expanded seismic network will be combined with hypocenter maps produced by NOAA's Environmental Data Service. The researchers will also monitor the micro-earthquake activity of the two volcanoes and determine the type of fracturing along the region's active faults.

The University's work also involves the development of methods of estimating the possible impact petroleum-related offshore activities could have on marine organisms.

Calendar Of Business Events

July 8—Wichita, Kan.—Business Opportunity/Federal Procurement Conference, Century II Exhibition Hall. Sponsors: Sen. James B. Pearson, Sen. Bob Dole, Rep. Garner E. Shriver. For information: Nancy Schmitt, c/o Sen. Dole, 100 N. Broadway, Wichita, Kan. 67202 (316-263-4956); or Tom Blossom, c/o Rep. Shriver, Box 1974, Wichita. Kan. 67201 (316-265-4233).

July 11-14—Washington — Washington Gift Show, Shoreham Americana and Sheraton Park Hotels. For information, Irene Weissman, Little Brothers Shows, Inc., 261 Madison Ave., New York 10016 (212-986-8000).

July 11-16—Dallas—July Homefurnishings Market, Dallas Market Ctr. For information, Public Relations Dept., Dallas Market Ctr., 2100 Stemmons Freeway, Dallas 75207 (214-748-6832).

July 12-16—Washington—National Conference of Weights & Measures, Shoreham Americana Hotel. For information, Harold Wollin, Exec. Sec., Nat'l Conference of Weights & Measures, National Bureau of Standards, Washington, D.C. 20234. (301-921-2401).

July 13-15 — Washington — Improving Managerial Skills, Georgetown Univ. For information, Continuing Mgt. Education, SSCE, G'town U., Washington, D.C. 20057 (202-625-4353).

July 15—State College, Pa. — Business Opportunity / Federal Procurement Conference, Penn State University. Sponsor: Rep. Albert W. Johnson. For information, Sally Woodring, c/o Rep. Johnson, 44 E. College Ave., Suite 360, State College, Pa. 16801. (814-234-7930).

July 15—Kansas City—Women in Business conference, Kansas City Trade Mart. Sponsors: Small Business Administration and other government and local agencies. For information, Kansas City SBA (816-374-7212).

July 15-16—Albuquerque—Techniques of *In Situ* Energy Recovery short course, Univ. of New Mexico. For information, Doyle Caton, Mgr., Energy Information, Technology Application Center, U. of N.M., Albuquerque, N.M. 87131.

July 18-20—Ipswich, Mass. — Prospects for New Printing Systems, Institute for Graphic Communication Conference Ctr. For information, IGC, 375 Commonwealth Ave., Boston, Moss. 02115 (617-267-9425).

July 18-23—Los Angeles—Fourth Annual Intersociety Conference and Exposition on Transportation, Los Angeles Hilton Hotel. For information, Thomas P. Woll, Federal Railroad Administration, U.S. Dept. of Transportation, 2100 2nd St. SW., Rm. 4108, Washington, D.C. 20590.

July 19-20—St. Louis—A Professional Approach to Marketing Construction Services seminar, Stouffer's Riverfront Towers. For information, Madeline Graeter, Group Communications, Inc., 6101 Southwest Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

July 19-21—New York—Fundamentals of Finance & Accounting for the Non-Financial Executive, Barbizon-Plaza Hotel. Sponsor: The Wharton School, Univ. of Pa. For information, Heidi Kaplan, New York Mgt. Center, 360 Lexington Ave., New York 10017 (212-953-7262).

July 19-Aug. 5—Chicago—Prevention of Explosions, Fires and Injuries in the Gas and Petroleum Industries, Ill. Institute of Technology and training school in Marinette, Wisc. For information, Kathy Fisher, Fire Protection Course, Institute of Gas Technology, 3424 S. State St., Chicago, Ill. 60616 312-567-3881).

July 21-22—St. Louis — Design/Build, Build/Lease and Financing Building Projects seminar, Stouffer's Riverfront Towers. For information, Group Communications, Inc., see address above.

July 23—Duluth, Minn.—Business Opportunity/Federal Procurement Conference, Arena-Auditorium. Sponsor, Rep. James L. Oberstar. For information, Mr. Jody Kauchick, c/o Rep. Oberstar, 231 Federal Bldg., Duluth, Minn. 55802 (218-727-7474).

July 26-28—Washington—Program Budgeting, Georgetown Univ. For information, see address above.

'Economic Summit' Has Anti-Inflation Emphasis

PRESIDENT FORD IS HOST TO HEADS OF STATE; RESTRAINT SEEN VITAL IN TRANSITION PERIOD

Seven major industrialized nations, seeking to move the international economy out of the current period of recovery into a sustainable period of expansion, are emphasizing the need to avoid inflation.

This direction was set at the "economic summit" meeting in Puerto Rico June 27-28 at which President Ford played host to the heads of state of Canada, France, West Germany, Italy, Japan and the United Kingdom.

"Our objective now," the leaders agreed, "is to manage effectively a transition to expansion which will be sustainable, which will reduce the high level of unemployment which persists in many countries and will not jeopardize our common aim of avoiding a new wave of inflation.

"That will call for an increase in productive investment and for partnership among all groups within our societies. This will involve acceptance, in accordance with our individual needs and circumstances, of a restoration of better balance in public finance, as well as of disciplined measures in the fiscal area and in the field of monetary policy and in some cases supplementary policies, including incomes policy. The formulation of such policies, in the context of growing interdependence, is not possible without taking into account the course of economic activity in other countries."

Rebound bringing confidence

The seven leaders spoke of recent economic progress, saying in their closing joint declaration that "renewed confidence in the future has replaced doubts," and pointing out that success in fighting inflation and overcoming unemployment in some countries has had a beneficial effect on other countries where recovery is still relatively weak.

In a passage that many observers interpreted as referring to Italy, the declaration noted: "We recognize that problems may arise for a few developed countries which have special needs, which have not yet restored domestic economic stability, and which face major payments deficits. We agree to continue to cooperate with others in the appropriate bodies on further analysis of these problems with a view to their resolution. If assistance is necessary to avoid general disruptions in economic growth, then it can best be provided by multilateral means coupled with a firm program for restoring underlying equilibrium."

The summit participants commented in their closing statement on a number of current developments on the worldwide economic scene.

▶ Reform of the international monetary system. Early legislative ratification of agreements made by the International Monetary Fund at a recent Jamaica meeting was urged. Participants also stressed "the importance of each nation managing its economy and its international monetary affairs so as to correct or avoid persistent or structural international payments imbalances."

▶ Lowering of trade barriers. "At the OECD we reaffirmed our pledge to avoid the imposition of new trade barriers.... Wherever departures occur, elimination of the restrictions involved is essential and urgent." Also, it was held to be important to avoid exchange rate policies that distort world trade and give rise to protectionist responses.

▶ Progress in the Geneva Multilateral Trade Negotiations. The goal of completing these negotiations by the end of 1977 was reaffirmed .

▶ East-West economic relations. It was agreed that developing such relations on a sound financial and reciprocal commercial basis "warrants our careful examination, as well as efforts on our part to ensure that these economic ties enhance overall East-West relationships."

▶ Government-supported export credits. "We welcome the adoption, by the participating countries, of converging guidelines with regard to export credits. We hope that these guidelines will be adopted as soon as possible by as many countries as possible." (Action by the Eximbank of the United States in this field was reported in the June 21 issue of *Commerce America*).

▶ International investment climate. The participants commended the OECD Ministerial Council declaration on this subject (see item in "Multilateral Trade Negotiations" section on next page).

▶ Energy. "We intend to make efforts to develop, conserve and use rationally the various energy resources and to assist the energy development objectives of the developing countries."

▶ Relations with developing nations. "The industrialized democracies can be most successful in helping the developing countries meet their aspirations by agreeing on, and cooperating to implement, sound solutions to their problems which enhance the efficient operation of the international economy." The participants said their efforts "must be mutually supportive, not competitive" and "considered as complementary to the policies of the developing countries themselves."

The leaders commented also, on relations with the developing nations, that some progress has been made in following up the results of the 1975 Seventh Special Session of the UN General Assembly, including "the positive results achieved in some areas at the UNCTAD IV meeting in Nairobi" and the work being carried out by the Conference on International Economic Cooperation in Paris.

The declaration concluded on this note: "We attach the greatest importance to the dialogue between developed and developing nations in the expectation that it will achieve concrete results in areas of mutual interest. And we reaffirm our countries' determination to participate in this process in the competent bodies, with a political will to succeed, looking toward negotiations, in appropriate cases. Our comon goal is to find practical solutions which contribute to an equitable and productive relationship among all peoples."

The Puerto Rico meeting was the second in a series of economic summits. The first was held in Rambouillet, France, last November.

Multilateral Trade Negotiations

This article is another in a series of progress reports on the multilateral trade negotiations, prepared by the Commerce Department Office of Int'l Trade Policy.

WASHINGTON

Industry Policy Advisory Committee (IPAC) members were briefed and consulted June 16 on the MTN issues of GATT reform, sectors, government purchasing, safeguards, customs matters, and tariffs. A highlight of the meeting was an MTN status report by Ambassador Walker, head of the U.S. MTN Delegation. Next meeting: Nov. 10.

The sixth round of **Industry Sector Advisory Committee** (ISACs) meeting was held June 2-14. The 27 committees were divided into four groups, with each group meeting in a plenary session followed by individual committee meetings. During plenary sessions the members were briefed on quantitative restrictions, GATT reform, and government purchasing. In the individual committee meetings the ISACs were further consulted on these issues, as well as on border taxes, safeguards, tariffs, and sectors. The committees also continued work on the fine-tuning of their advisory reports. The next full round of ISAC meetings is scheduled for Sept. 20-30. Meetings of individual ISACs may be called prior to that time upon request, however.

A combined meeting of the **Labor Sector Advisory Committees** (LSACs) and the **Labor Policy Advisory Committee** was held on June 15, with Ambassadors Dent and Walker in attendance. The advisory reports of the LSACs are nearing completion, with the Transportation and Electrical sectors completed and three other sector reports in the final stages. The Services sector still has some remaining issues to be resolved before a report can be drafted.

The **Agriculture Policy Advisory Committee** met June 17 with Ambassadors Dent and Walker and Secretary Butz to discuss various MTN issues. Ambassador Walker gave a report on the progress of negotiations from his Geneva perspective. Specific issues which were discussed were safeguards, variable levies and sectors.

The **President's Advisory Committee on Trade Negotiations** (ACTN) will meet at the Department of Agriculture Sept. 9. Secretary of Agriculture Earl Butz and his international trade advisors will discuss agricultural issues in the Multilateral Trade Negotiations. The ACTN meetings are being rotated among the Commerce, Agriculture, and Labor Departments in order to assure full exposure of the ACTN to the issues of concern to the constituencies of those departments, as well as to the private sector in general.

GENEVA

The MTN Agriculture Group's **Grains Subgroup** held its fifth session May 24-26 and continued the multilateral examination and analysis of measures affecting grain exports and imports applied by individual countries. It was noted that little progress had yet been made in narrowing the differences of view between some of the major trading countries. However, in order to advance the Subgroup's work more rapidly, it was agreed that bilateral and plurilateral discussions among participants should be intensified.

Issues of particular concern to the U.S. were discussed at the June 14 **GATT Council** meeting. American imposition of import controls on specialty steels was generally criticized as unwarranted by the Council members. Although no formal charges were leveled at the U.S., a number of participants, including the EEC and Canada, reserved their rights under Article IX to take future action. The U.S. noted it would probably submit a formal Article XIX notification on the specialty steels action.

The U.S. requested the establishment of a GATT panel under Article XXIII:2 to examine the EEC minimum import price and licensing system on processed fruits and vegetables. The EEC objected to the immediate establishment of such a panel but agreed to respond to the U.S. request without "undue delay." Although the U.S. had support from Australia and Canada, there was insufficient support to establish the panel at this meeting. The U.S. request for the panel remains on the agenda for the next council meeting.

The U.S. and Australia asked the EEC to provide interim reports on EEC Association Agreements which were sufficiently thorough and informative to enable third parties to form judgments as to whether, and to what extent, their interests are affected. The EEC responded that these reports were merely "information" reports but would consult with the U.S. and Australia to determine what type of information was sought.

In response to severe balance-of-payments problems the Italian government recently instituted a temporary prior deposit requirement affecting all requests for foreign exchange. The measure is scheduled to expire after three months.

The U.S. expressed sympathy for Italy's financial plight and suggested that Italy submit the measure for review in the Balance-of-Payments Committee. A number of council members supported the U.S. initiative. Italy expressed its willingness to follow the Council's suggestion but preferred that the matter be taken up when discussion resumes at the next Council meeting. It was so agreed.

PARIS

At the annual meeting of the **OECD Council** at the ministerial level June 21-22, the governments of the industrialized countries adopted voluntary guidelines for multinational enterprises and international investment, renewed for a further year the OECD Trade Pledge and agreed on the main elements of a strategy for "moderate but sustained" growth.

Secretary of State Kissinger and Secretary of the Treasury Simon led the U.S. Delegation. Secretary Kissinger stressed the need for new cohesion and cooperative economic action by the industrialized countries in addressing the meeting. He urged the OECD countries to adopt a systematic work program to develop objectives and approaches for economic relations with Communist countries. Secretary Kissinger also emphasized the need for the industrialized countries to coordinate their positions on "North-South" issues at international conferences and to increase the effectiveness of their aid efforts to the developing countries. Specifically, he proposed that the OECD members review the entire range of industrialized-developing country issues, develop a set of objectives and strategies for dealing with them, and strengthen the OECD institutional arrangements for handling them.

Secretary Simon stressed that reduction of inflation through the implementation of prudent economic and financial policies is the way to achieve sustainable growth. The final communique laid similar emphasis on the importance of eradicating inflation as a prerequisite for the steady economic growth needed to restore full employment .

The OECD governments, except for Portugal, renewed for a further year the trade pledge, which is aimed at deterring countries from taking unilateral measures to restrict trade and other current account transactions in order to overcome balance of payments problems. The OECD governments, except Turkey, also agreed to a declaration with voluntary guidelines on the activities of multinational firms and related government responsibilities toward international investment: 1) establishing inter-governmental consultation procedures on matters relating to the guidelines; 2) providing for procedures to review laws, regulations and administrative practices which depart from national treatment; and 3) setting up consultation procedures when an OECD member country considers its interests adversely affected by another country's measures providing incentives or disincentives for international direct investment.

POLLUTION CONTROL SHOW—*Theodore Barrie (left) and Joseph Paganotti of Cascade Industries explain (interpreter, center) firm's products to two visitors.*

CONCERN OVER POLLUTION IN FRANCE SPURS INTEREST IN U.S. EQUIPMENT SHOW

An exhibition of pollution-control equipment at the U.S. Trade Center in Paris this spring coincided with a renewed press interest in environmental pollution. In addition, an oil-spill off the coast of Brittany dramatized the pollution threat. Thus, the exhibition evoked strong interest from potential buyers and agents.

The products displayed—oil-spill clean-up equipment, air and water pollution control equipment and instrumentation—demonstrated the advanced technology of American manufacturers and offered visual proof of possible solutions to the problems being revealed in the newspapers and on television.

The French market for pollution control equipment is still in the developing stage, but government actions and public pressure are expected to stimulate demand. Although emphasis has been on control of water pollution, current programs should result in increased attention to solid waste, noise, and air problems, the more stringent monitoring of auto emissions and enforcement of compliance regulations. As U.S. technology is considered to be three to five years ahead of that of French and EEC manufacturers — which have not yet developed versatile, multi-purpose equipment — interest in U.S. equipment should increase in the near term. Best sales potential is likely to be in sophisticated water treatment instruments and equipment, sewage equipment, and oil protection and cleaning equipment.

Several exhibitors commented that few questions were raised concerning prices—indicating that prices may not be a major factor in the acceptance of such products on the French market. Terms of payment, on the other hand, are most important. U.S. exporters would do well to consider granting 90-day letters of credit or time drafts.

Of the 34 exhibitors at the show, 15 were unrepresented in France and their equipment generally unknown. By show's end, 39 agent/distributor agreements, including a number for surrounding countries, were under negotiation; two had been concluded. Though floor sales were only $21,000, 12-month projections are for $6.9 million.

Pollution Control Exhibition Set For Paris In December

An international environmental exhibition and a conference sponsored by the nine Environmental Ministers of the European Economic Community will be held in Paris in December as part of International Environment Week. The commercial display, to be held at Porte de Versailles, Paris, Dec. 7-11, will offer U.S. firms an opportunity to spotlight American products for European and other foreign buyers.

Contact: TECHNOEXPO, 8, rue de la Michodiere, 75002 Paris, to participate in the air, water, and noise sections, and GERP, 12 rue Chabanais, 75002 Paris, for the waste section; and/or the U.S. representative, French Trade Shows, French Chamber of Commerce in the United States, 1350 Avenue of the Americas, New York 10019.

SOPHISTICATED PROCESS CONTROL INSTRUMENTS SELL WELL IN U.K.

A strong, persistent demand for American technology in Britain's processing industries, despite the decreasing buying power of sterling and the general shakiness of the economy, was evident to exhibitors at a recent London U.S. Trade Center show. At PCI '76, 28 exhibitors representing 50 U.S. firms displayed a variety of process control instruments.

In a highly industrialized environment like Britain, competition forces firms to adopt new technology as it becomes available, even if general industrial activity is low. Moreover, although recent aggregate investment figures have been unimpressive, several processing industries, particularly those linked with North Sea oil development, have continued with their growth plans. As the product content of PCI '76 was concentrated in the most sophisticated sectors of the industry, such as microprocessing and data acquisition, the exhibition had great appeal to senior technical personnel from Britain's largest and most advanced corporations. On the other hand, simplified products which offer substantial savings have a strong timely appeal under current economic conditions.

Many of the products that were on display are readily duplicated from domestic and foreign sources. Therefore, they are highly price-elastic, and the current strengthening of the dollar against the pound sterling and other European currencies will adversely affect standard-technology products. For unique high-technology computer-related equipment, buyers are prepared to pay premium prices.

Products considered to have the best sales potential are: micro-computer-based systems, transmitters, controllers, recorders, sequential recording systems, specialized flowmeters, data loggers, digital indicators, small-diameter steel tubing, specialized gages and valves, fire detection and alarm systems, and specialized measuring equipment and analyzers.

"Overwhelming," was the brief evaluation of exhibitor J. W. Liston, sales engineer of DATACAP Inc.: he sold $150,000 worth during the show and found three agents, in addition to expecting $1.9 million in business during the next year. Brian Stones, U.K. representative for Hersey Products, Inc., reported 80 new contacts for his firm, which sold $40,000 off the floor and projects $200,000 within 12 months. Overall, PCI '76 generated $717,000 in immediate sales, and an estimate of about $20.8 million in business over the next year.

FROM PONY EXPRESS TO MICROWAVE—*Visitors at Telecom '76 were startled as Mike Dorsey, Australian TV star, rode into Sydney U.S. Trade Center to deliver a bicentennial message from Commerce Secretary Elliot Richardson by the fastest method available 200 years ago. Dorsey quickly found himself surrounded by the most advanced telecommunications equipment of the 20th century. Photo at right: E. S. Chatlos (left), Chatlos Systems Inc., describes his firm's automatic pressure monitoring systems to a potential customer.*

EXHIBITORS AT 'TELECOM' IN AUSTRALIA GET GOOD SIGNALS FROM END-USERS

Recent advances in technology and rapid growth in demand for telecommunications services in Australia point toward significant marketing opportunities for U.S. firms.

Exhibitors at TELECOM '76, a communications equipment show at the Sydney U.S. Trade Center, agreed that their contacts with the "right" people proved to them that business prospects are excellent. Off-the-floor sales reached $281,500; 12-month projections, almost $11 million. Thirty-six companies participated.

The market for communications equipment in Australia is largely dependent on the capital expenditure plans and policies of the Australian Telecommunications Commission (ATC). This commission, and the Overseas Telecommunications Commission, plan to improve Australia's facilities to match the demand for services.

Several end-user developments, exhibitors noted, may affect the competitiveness or marketability of U.S. products:

- An increased end-user market is predicted for data communications equipment, making possible more efficient, cost-effective use of telephone line facilities—particularly if ATC increases charges for long-haul circuits.
- Greater use of integrated circuits will mean a growing market for printed circuit board (PCB) repair equipment and component testers.
- The greater complexity of PCBs requires computer design accuracy and thus, a larger market for computer-aided design and drafting systems.
- Transportation and fuel costs, together with great distances in Australia, should make video transmission systems more attractive and viable.
- Introduction of FM broadcasting has opened a whole new market for FM broadcast equipment.

Standard procedure in the public sector is to call for tenders; in the private sector, a tendency toward leasing equipment from suppliers is growing, and direct purchases from abroad are rare. U.S. exporters not currently in the Australian market will have to gain approval from the ATC before they can supply equipment which interfaces with the telephone network. Approval from the Postmaster General's Department (PMG) is also required for marketing mobile radio equipment. Certain tolerances and specifications must be met; there are, however, no levies on imports of communications equipment that are not applied to domestically manufactured products.

Australia's geography requires sophisticated data communications equipment, long-haul data transmission over telephone lines and higher technology products for the telephone industry. As labor costs increase, automatic systems will become more attractive.

The current level of Australian technology equals that of U.S. products in some categories, such as radios and transceivers. The size of the market—relatively small—precludes the economic development and marketing of Australian designed/manufactured equipment of a more complex or specialized nature; but U.S. firms should be aware that Australian technical competence is adequate for any level of support, including whole or partial manufacture under license where appropriate.

The continued strengthening of the U.S. dollar, higher rates of inflation in Australia, Japan, and the United Kingdom relative to that in the United States, and increasing Australian labor costs are seen as the most significant factors for the continued price competitiveness of U.S. products. In the short term, little competition is predicted from the domestic industry; third-country suppliers, particularly Canada, Japan and Europe, are the chief competitors.

Any increase in the government budget, enabling agencies to purchase higher quality products, should also increase the price competitiveness of U.S. products. At present, however, government departments place major importance on price. As long as restrictions on spending exist, U.S. firms will face difficulty marketing products which are higher priced than those of competitors, despite any quality advantages.

CONSERVATIVE MOROCCO POLICIES ARE BRINGING SOUND ECONOMIC GROWTH

The Government of Morocco has done well in managing the country's industrial development during the last eight years. Despite a few sporadic disruptions attributable to economic and political factors, both domestic and international, the government has brought about consistent growth in the country's GNP. Unlike the precipitous rises and sharp declines of economic expansion often experienced by developing countries, Morocco's growth in GNP has been one of undramatic but steady progression. Actually, budget expenditures for development and the moderate growth rates are a reflection of the government's conservative fiscal policy, according to Joseph L. Fisher, Commercial Attache at the U.S. Consulate General in Casablanca.

Morocco's consistent but undramatic industrial expansion has attracted the attention of relatively few American business persons. Many more would do well to consider the country's past economic achievements and thoroughly investigate the many investment and marketing opportunities in the offing, Fisher adds.

Morocco implemented its first five-year plan in 1968 with the objective of increasing annual average GNP by 4.3 percent; it achieved a rate of just below 6 percent. During the course of the plan investment expenditures amounted to $4 billion, of which most was governmental. During the five years of the plan, mining, fuel and power increased by 32 percent, manufacturing 14 percent, wholesale and retail trade 11 percent and transportation, banking and services, 7 percent. There was no expansion in the construction and public works sector, and agriculture and fishing declined by 23 percent. Upon conclusion of the plan per capita GNP was $286.

CASABLANCA FROM THE AIR—*A visit to Morocco is recommended by the author of this report, to enable a firsthand analysis of the expanding opportunities there.*

The current five-year plan (1973-1977) originally envisaged total investment of $6.6 billion, intended to produce an average real growth rate of 7.5 percent per annum. Of this amount, again, the largest input was to be provided by government and public corporations. Last year, however, the government revised its investment expenditures upward to $5.9 billion, primarily due to a shortfall in private capital investments. A further upward revision is reflected in the government's budgeted $2.5 billion for investment expenditures in 1976. If these expenditures are made, an aggregate $5.2 billion will have been expended during the first four years of the plan.

During 1973 to 1975 the average annual increase in GNP was 5.3 percent as compared to the 7.5 percent increase envisioned in the plan. The shortfall was due to an unexpected and substantial decline in mining output of 25 percent, almost entirely in the crucial sector of phosphates, where sales, in tonnage and value, were considerably lower in 1974 and 1975 than expected. Excepting agriculture and fishing, which declined by 8 percent, all other economic sectors registered increases: construction and public works, 58 percent; manufacturing, 9 percent; fuel and power, 9 percent; transportation, banking and services, 5 percent; and wholesale and retail trade, 5 percent. For 1975, per capita GNP was $430.

The government's 1976 budget shows a deficit of approximately $2.2 billion, and most certainly there will be a trade deficit in 1976 perhaps as great as 1975's $1 billion. However, the government expects to finance these deficits with internal borrowing. The government has just signed a Euro-dollar loan agreement for $300 million, and a $130 million loan is awaiting ratification by the EEC Council of Ministers. Undoubtedly, additional loans and credits will be forthcoming from the Kuwait Fund for Arab Economic Development, World Bank, AID, and other lending institutions. A positive factor in Morocco's ability to obtain financing and loans are its ratios of debt service to exports (9 percent) and to total debts (8.75 percent).

Market nears $3 billion

In 1974 Morocco became a $2 billion import market, an impressive expansion of $1.1 billion in a two-year period, even considering the rising cost of raw materials, machinery and equipment. Total imports in 1975, at $2.7 billion, were up 38 percent. Of this amount, however, capital investment equipment, as opposed to semi-finished products and raw materials, registered the highest dollar and incremental percentage increases in procurement expenditures. Much of this equipment is tied to the 58 percent expansion of the construction and public

works sector previously mentioned; this obviously offers considerable export opportunities for U.S. manufacturers.

Within the next several months the government will announce tenders for machinery in connection with the construction of a million-ton iron and steel mill, a 45,000-ton pulp and paper plant, and equipment for a 25 million-ton phosphate port. Also, there will be a tender for the $200 million expansion program of the Ports of Casablanca and Mohammedia, which will include the procurement of numerous cranes, side-loaders, fork-lifts and container lifters.

Machinery will be required for lead and copper foundries having annual capacities of 70,000 and 30,000 tons, respectively, and a 35,000-ton sodium carbonate plant. Earthmoving, hydroelectric and irrigation equipment also will be purchased for construction of four dams which will commence this year as part of a 15-year program to irrigate one million hectares (2.5 million acres).

Other requirements for the government include refrigerated storage and transportation equipment for perishable food items, food processing and packaging machinery, 40 fishing trawlers, textile machinery and machinery to process sugar cane and beet.

Most involve consulting contracts

Most of these projects will involve contracts for consulting engineers. A couple of American consultants have been among those awarded contracts; they are involved in construction of textile mills and the $160 million expansion of Morocco's principal oil refinery. Also, a number of American companies presently are being considered for a contract to prepare the industrial sector of the government's third five-year development plan.

Given the government's often-mentioned preference for American technology, U.S. consultants should investigate the opportunities open to them in Morocco. Their presence, in turn, would enhance the prospects of additional U.S. exports.

There has been increasing disposition on the part of U.S. firms to consider joint venture investments. Several such proposals are under consideration, including the manufacture of pharmaceuticals, polymerized vinyl acetate, auto batteries and the assembly of trucks and utility vehicles.

Banque Nationale pour le Developpement Economique and the Office de Developpement Industriel are interested in having American companies enter into joint ventures to process and can tomatoes, onions and carrots, in addition to the establishment of a sugar refinery and cement plant.

Morocco's Foreign Investment Code offers numerous incentives to foreign investors. Some of these are exoneration from customs duties, a profit tax holiday of 10 years, and partial refund of interest on loans obtained locally. In comparison to other countries' nationalization laws, Morocco's is quite liberal. While most business enterprises do require 50 percent Moroccan ownership, there are some sectors in which the enterprise can be wholly-owned by the foreign investor. There is, in fact, a substantial private sector in Morocco, which benefits considerably from the effects of heavy public investment.

As for doing business in Morocco, the following excerpt from a recent survey of American companies in the country adequately describes the business climate: "1975 was a very good year for most of the 47 companies in Morocco in which Americans hold substantial equity and managerial interests. It was a year of record sales and profits for some and almost all companies expect an even better year in 1976. With this outlook and with the transition to Moroccanization behind them, managers generally express more satisfaction with their situation and more optimism about the future than was the case a year or so ago. Capital investment plans through 1978 amount to over $11 million, almost all to be financed through earnings and local borrowings."

Hopefully, Fisher concludes, the foregoing should answer the question: Why Morocco? On both counts, exports and investments, one should visit the country to assess the prospects of entering this expanding market.

Kuwait's Aid, Investment Activity Make It Major World Economic Force

The economy of Kuwait is booming, and in a world where serious problems of inflation and recession plague developed economies there is intense competition among international companies to take advantage of that boom. Moreover, the highly developed Kuwaiti entrepreneurial sense together with a great need for management, marketing and technological skills has led local officials and businessmen to urge others to come to Kuwait to talk about the whole range of economic developments that are part of the Kuwaiti boom.

Behind Kuwait's boom, of course, lies tremendous income from oil, continues the U.S. embassy there. Since 1974 annual government income from oil and from investment, which is also becoming significant, has been on the order of $8 billion. Something close to this rate of income is expected to be maintained over the next five years. This is so despite the fact that Kuwait oil production is presently about 2 million bpd compared to over 3 million bpd prior to October 1973. Recent oil price increases as well as constantly increasing investment income have more than compensated for reductions in crude oil production.

There is presently a debate within Kuwait regarding oil production, with important elements of the country's leadership arguing that production should be increased or that it should be reduced even below present levels. As of now, it appears most likely that oil production will remain at or near (i.e., within 250,000 bpd) present levels. Even if oil production and oil income should be reduced somewhat, investment income, which could approach $2.5 billion per year by the early 1980s, will continue to grow.

This level of income, together with recently acquired control of oil production and marketing, in effect, allows the Government of Kuwait to undertake a broad range of ambitious domestic and foreign economic programs. Work has begun and over the next five years several billion dollars will be spent in Kuwait on infrastructure and industrial projects while additional billions will be spent outside Kuwait as investments and aid.

Where the money is going

More specifically, it appears likely that over the next five years income will be in the $40-50 billion range. Of this, between $15 and $20 billion will be consumed by regular budgetary expenditures, some of which will be applied to development projects. Another $10 billion is expected to be allocated to major petroleum-based industrial and shipping, military, public housing and other industrial and infrastructure activities. As much as $10 billion could be set aside for economic assistance programs (if the 1974/75 rate is maintained). There still is likely to be some billions of dollars of investible surplus funds to add to Kuwait-owned foreign assets, which were worth about $14 billion at the end of 1975.

Kuwait is highly developed by regional standards, and yet several major public works programs are being planned or implemented. The most important is a major new program to develop as much as $4 billion in new public housing, including units for both low and medium-income Kuwaitis. American advisors will play an important role as this program is implemented. Several hundred million dollars will be spent to expand Kuwait's power and water desalting facilities. By 1980 the government hopes to double electrical generating capacity to produce 2,618 megawatts of electricity and 92

million imperial gallons of sweet water per day. Moreover, the government is beginning to investigate the possibilities of developing nuclear power in Kuwait.

Other major public works and infrastructure programs include a major expansion of Kuwait University, including new medical and engineering schools, continued expansion and improvement of the public school system, and construction of at least five new civilian hospitals with some 2,000 beds.

In addition, several hundred million dollars will be spent to improve and expand transport facilities. These projects include major new port/port expansion programs, projects at Kuwait International Airport, major highway programs and a possible rapid transit link between Kuwait and the main industrial area of the country 30 miles south of the capital.

Kuwait's wealth will also allow "quality of life" improvements such as a $200 million sports/recreation/entertainment complex and telecommunications equipment that will allow direct dialing to foreign countries including the United States.

In addition, several hundred million will be made to improve the basic infrastructure of the country, a major allocation of resources will be devoted to expansion of petroleum-related industry. Kuwait already has large, modern oil refineries and fertilizer plants. Contracts were signed in 1975 and work has recently begun on the Kuwait Gas Utilization Project (KGUP), which entails the gathering of gas produced together with the production of crude oil (associated gas). The most important element of KGUP will be a very large LPG plant that will be able to produce 5.5 million tons annually of propane, butane and natural gasoline.

INDUSTRY IN KUWAIT—*Several billion dollars will be spent on domestic infrastructure and industrial projects in coming years. Here, output of a Kuwaiti factory is handled by conveyor.*

Other projects under study

Several other major petrochemical plants are under serious consideration. The most important are for the manufacture of aromatics and for ethylene and polyethylene. A major new export oil refinery is also being planned. In addition, present capacity of refineries and fertilizer plants are to be expanded and such other petroleum-related projects as a lube oil refinery may be built. Meanwhile, major additions to Kuwait's oil tanker fleet are being made, and LPG and product tankers have been or are expected to be ordered to complement the new industries to be established. In all some $3 billion or more is expected to be earmarked for these projects over the next five years.

Apart from these large projects, several smaller industrial projects, mainly in the private sector, are planned or already under way. U.S. firms will participate in aluminum, canning and other projects, and there is a major trend towards construction-related industry including expansion of existing cement, concrete pipe, metal pipe, sand-lime brick and other industries.

A third major area of domestic expenditure will be for military programs. Although Kuwait's military forces will remain small, there is a significant program to improve Kuwait military equipment and facilities. In addition to major weapons programs, primarily for tanks, aircraft and surface-to-air missiles, the government will undertake such military infrastructure programs as new military airports, new naval facilities and a new military hospital. The various military programs are expected to cost on the order of $2-3 billion and this money will be spent by 1980.

Kuwait's foreign economic activities are becoming increasingly significant. As noted above, at the end of 1975 the government owned some $14 billion worth of foreign assets, and the Kuwait private sector was thought to own another $4-5 billion. In 1975 the government and its institutions committed bilaterally or through multilateral agencies some $2 billion in economic assistance. Kuwait's economic assistance and investment activity make it an important force in international finance. It is likely that Kuwait will remain very active as an aid donor and as an important investor abroad.

There is and will be considerable variety to Kuwaiti foreign ecomonic activity. A large portion of Kuwait's foreign aid has been going directly to Egypt, Syria and Jordan as direct grant assistance, and several billion dollars are "invested" abroad, mainly in London and New York, in short-term holdings in banks. Through intermediaries in financial capitals a great deal is invested in real estate or equities in capital markets. Kuwaiti institutions have become among the most active and important in underwriting and managing convertible bond issues.

In addition, however, the government and Kuwaiti institutions increasingly have sought to enter joint ventures throughout the world. In this manner Kuwaitis have seriously considered taking equity positions in such diverse projects as a major pulp and paper mill in Brazil, in iron, copper and bauxite mines in Africa, and in a major pipeline in eastern Europe. The Kuwait Fund for Arab Economic Development, whose authorized capital was in 1974 increased 500 percent, has begun to assist countries beyond the Arab world. Loans have been extended for projects in sub-Saharan Africa and South Asia. Meanwhile, Kuwaiti economic assistance and investment in the Arab world increased substantially in the last year or so. Major aid and investment commitments have been made or are being considered for Egypt, Syria, the Sudan, Yemen, Tunisia and Morocco.

Factors constraining growth

Not surprisingly, the rapid growth in the level and scope of Kuwait-based economic activities has been constrained by several factors. The most serious is manpower. Managers are in short supply, and pressures on both skilled and unskilled labor are rising. The price of labor is being bid up by the regional boom. There have also been periodic supply constraints, and inflation is a problem. Such facilities as housing and schools for newcomers, notably for Western managers, are strained. As with Kuwait's neighbors, port congestion emerged in 1975 as a serious problem. Ironically, since Kuwait's port is the most efficient in the Gulf, shippers directed goods bound for Iraq and Saudi Arabia to Kuwait. Thus, Kuwait's major port (Shuweikh) became overwhelmed. Efforts are being made to expand port facilities and to introduce better cargo handling procedures. By this spring normal waiting time for conference ships was about 15 days and for non-conference ships about 20-25 days.

A problem directly related to reduced oil production is that the availability of gas for power and as an industrial feedstock is strained. Presently gas production in Kuwait is determined by oil production, but sizable deposits of unassociated gas are thought to exist on and

offshore. Work has begun to tap the onshore deposits. Nevertheless, assuming no major increase in oil production, there will not be sufficient gas for Kuwait's electric power and industrial requirements until unassociated gas becomes available, probably after 1980. Where possible, oil will be used, but the combination of labor and energy constraints has caused at least one major project (a steel mill) to be dropped, and another (aluminum smelter) almost certainly will meet the same fate.

This reinforces the tendency to seek joint ventures abroad. Thus, Kuwaitis are seriously involved with steel and aluminum projects abroad. But there are constraints in the foreign investment area also. Some countries (Canada, Australia, Japan) have laws which tend to discourage foreign investment; in some countries (U.S., Germany) Kuwaiti investment has raised, momentarily at least, political problems. In many less developed countries (Brazil, Egypt, Turkey) there are economic or other problems that discourage actual investment even though as a matter of policy Kuwait would like to invest in such countries.

U.S. is favorite investment site

Kuwait has invested considerable amounts in both developed and less developed countries, but the constraints noted above have prevented Kuwaitis from investing as much or as quickly as they may have wished. One interesting result is that the United States has emerged as the single most desirable locus of investment. Particularly in light of Britain's continuing economic problems, the United States is the only country that is large, diversified and open enough to accept relatively large amounts of Kuwaiti investment.

In an effort to surmount some of the problems there has been a conscious attempt to develop new institutions. Thus, several new companies have been created in Kuwait. For example, a tourism and recreation company has been established to oversee new recreational projects in Kuwait. Several new specialized companies and institutions have been created to facilitate Kuwaiti investment activity abroad. Within Kuwait the government itself has been changed. The Ministry of Finance and Oil has been split into two ministries and a new company is being created to coordinate petroleum-related industrial activity. A new Ministry of Housing has been formed. As noted previously, Kuwait's financial community is expanding, and the private sector is also growing in reaction to the economic activity of the country and the region. It is worth noting that several American companies have established offices or joint ventures in Kuwait as well.

Between 1970 and 1974 Kuwait is thought to have contributed about $4 billion to the U.S. balance of payments. Since then oil company profits probably have been significantly reduced, but U.S. trade and Kuwaiti investment in the United States have expanded significantly. In 1975 U.S. exports to Kuwait were about 400 percent above 1972 levels; U.S. exports were almost $370 million in 1975 while Kuwait exports to the United States were only about $60 million. Kuwaiti investments in the United States are now thought to be on the order of $3 billion. Thus, in 1975 Kuwait probably contributed close to $1.5 billion to the U.S. balance of payments. Though the trade advantage we currently enjoy will not last as gas and oil exports increase in the near future, Kuwaiti investment in the United States should assure that on balance the country will continue to add to our balance of payments.

The several billion dollars that Kuwait will spend on its development over the next five years represents important potential business for American firms. In addition, the billions of dollars worth of projects outside the country financed by local funds add to the country's importance to American business. Finally, for new-to-area firms, companies that successfully work in Kuwait often have an entree to other booming markets in the Gulf region. There is, in short, virtually no limit to what American business can do either in Kuwait or together with Kuwaiti partners elsewhere, despite the small size of Kuwait itself.

Significantly, Kuwaiti officials and businessmen want very much to work with Americans. American firms have a generally good reputation, and their management, marketing and technological expertise are sought. On the other hand, Americans have been criticized in the past for lack of interest in Kuwait, inflexibility and other weaknesses. There are local factors that make doing business more difficult than many U.S. companies would wish, but European, Japanese and other businessmen seem somehow to cope with these problems. They aggressively seek to take advantage of the possibilities offered. They perceive benefits that are also available to American business.

Egypt-U.S. Group Offers Abstracts On 35 Projects

The Egypt-U.S. Business Council has sponsored a program to identify projects in Egypt suitable for joint ventures between Egyptian and U.S. businessmen. A team of experts from the United States headed by David C. Scott, chairman of Allis-Chalmers Corp., went to Egypt to gather information, analyze capabilities, and prepare individual abstracts on projects judged to offer profitable opportunities through cooperation. The abstracts, which have now been completed, contain sufficient information on each project to allow U.S. firms to determine their potential interest in the opportunity.

The initial list of projects reviewed by the team numbered over 250 individual proposals. Thirty-five were ultimately identified as meeting the criteria of the Business Council staff. The projects fall into 10 major product areas: food and agriculture (9 projects), pulp and paper (3), chemicals (3), textiles (3), rubber products (1), glass (2), electrical products (5), heavy manufacturing (2), iron and steel (5), and ship support projects (2). Projects were selected, in part, because U.S. technology or management expertise will be a significant factor; the project will be highly visible; and, the project will act as a catalyst for additional development.

Abstracts of these projects are available from the Egypt-U.S. Business Council, Chamber of Commerce of the United States, 1615 H Street, NW., Washington, D.C. 20062. The Chamber will provide 15 abstracts free to each interested U.S. firm. A flat fee of $20 will be charged for any number over 15. For additional information on upcoming Egyptian projects, or assistance in doing business in Egypt, contact the Business Facilitation Staff of the Commerce Action Group for the Near East, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-4441).

Nigeria Clarifies Rules On Foreign Trade Papers

Banks in Nigeria have resumed writing letters of credit as a result of the Central Bank's issuance of new foreign exchange control regulations and the Ministry of Finance's release of port cargo clearance certificate directions. Banks had stopped writing letters of credit on April 1 due to the confusion caused by the government's ruling that all letters of credit must be prepaid in full by the Nigerian importer in naira to a bank in Nigeria. Confusion was compounded by the vague specification of the exact shipping documents required for letters of credit and the nonavailability of the new mandatory port cargo clearance certificate. The Central Bank has now made clear, in the regulations issued May 14, that banks need not demand advance deposits against letters of credit above usual levels for their customers.

The Central Bank has specified the shipping documents required for release of foreign exchange as follows: attested cable of confirmation of receipt of shipping documents including the port cargo

clearance certificate by the overseas correspondent bank; a proforma invoice; a copy of the Ministry of Finance form D as approved by an authorized dealer; and a copy of the letter of credit. The relevant shipping documents should be forwarded to the Central Bank by the Bank in Nigeria within two days of receipt of the cable from the corresponding bank. The relevant shipping documents are: the attested invoice; a copy of the non-negotiable bill of lading; a copy of the certificate of insurance if available; and the port cargo clearance certificate.

The new port cargo clearance certificate directions may be obtained from the Nigerian Port Authority or the Nigeria Airways. The directions contain a copy of the clearance certificate, the bill of lading, and other relevant documents to be used by all ships and airline owners or agents carrying imported cargo into Nigeria.

The new clearance certificate states that the ship or aircraft is allowed to berth or land in Nigeria within a specified period. The ship or airline owners are to make copies of the port cargo clearance certificate available to exporters for attachment to the other shipping documents to be submitted to the overseas corresponding bank. The correspondent bank is required to sight the clearance certificate and the other relevant documents before payment can be made to the exporter.

Exempted items

The following essential items are exempted from the above provisions concerning port cargo clearance certificates: meat—fresh, chilled, and frozen; milk and milk products; butter; eggs; fish; wheat and flour; stock fish; rice; cereals and cereal preparations; malt; hops; sugar; salt; medicaments; industrial raw materials and equipment; spare parts and tools; fertilizers; building materials—tiles, cement, roofing nails; tubes; pipes; galvanized pipes and tubes; sanitary ware; wire netting; printing ink; newsprint; printing and writing paper.

Currently authorized dealers in foreign exchange in Nigeria are: African Continental Bank Ltd., Arab-Bank, Bank of India (Nigeria), Bank of America (Nigeria), Bank of the North, Barclays Bank of Nigeria, Co-operative Bank, Co-operative Bank of Eastern Nigeria, International Bank for West Africa, Mercantile Bank, New Nigeria Bank, National Bank of Nigeria, Pan African Bank, Standard Bank Nigeria, United Bank of Africa, Wema Bank, Nigeria Bank for Commerce and Industry, North Central State Cooperative Bank.

The new foreign exchange control regulations now allow travelers into and out of Nigeria to import or export up to 50 naira in Nigerian currency.

Outlook Seen Favorable For U.S. Trade With Fiji

Fiji's economy remained healthy through the world economic perils of 1975, reports the U.S. Embassy in Suva, and the outlook for U.S. trade and investment continues favorable.

Foreign exchange reserves rose to record levels in 1975, principally as a result of sugar earnings. Inflation was lowered to 13 percent, and there was a substantial improvement in the net balance of trade for the year. On the debit side, production in key agricultural sectors declined but there were real gains in diversification for development in other sectors. Controls over fiscal and monetary policy were being relaxed at the end of 1975 to accelerate economic activity and create jobs; unemployment appears to be the most serious economic problem.

Many U.S. products find a welcome market in Fiji, and are generally competitive with goods imported from other countries. This would include, in particular, high technology products such as computers and business machines, but American clothing, consumables and sports equipment are also popular items. U.S. manufacturers can take advantage of Fiji's single-line tariff, which places American-made goods on an equal customs footing with other products imported from abroad.

Many large American firms are already represented in Fiji through their Australian or New Zealand subsidiaries and agents, but a growing number of local firms are interested in handling U.S. products on a direct basis. One major constraint has been the paucity of available shipping from mainland U.S. to Fiji. On the Fijian side, one major positive development is the increased capacity of Suva to handle containerized cargoes and the more expeditious port handling of landed goods.

Fiji is rapidly becoming a regional center for international organizations and regional institutions. As a consequence of the growing regionalism and international focus, Fiji is a particularly good location for U.S. firms that wish to establish themselves in the South Pacific.

Fijian business regulations, policies and practices are generally straightforward and conducive to overseas investment. The government favors proposals which assist in developing Fiji on a sound economic basis, provide opportunities for significant local equity participation, provide employment opportunities for locals, involve maximum processing of products in-country, and involve maximum use and development of common facilities and infrastructure.

The government is keenly interested in enterprises which are directed toward agriculture and mineral development, and is prepared to negotiate long-term agreements with overseas firms in those areas. The Central Monetary Authority, Ministry of Finance, and Ministry of Commerce, Industry and Cooperatives all play a central role in clearing foreign investment proposals in Fiji.

The preponderance of American investment in Fiji has been in tourism and related activities. The future of tourism in Fiji is closely linked to conditions facing the tourist industry worldwide, and with recovery taking hold in the United States and other major economic powers there is cause for guarded optimism that the Fiji tourist decline has bottomed out. Statistics reveal that the tourist industry was hard hit in 1975. Visitor arrivals declined about 12 percent, nearly 20 percent among Americans.

The designation of Fiji as a GSP beneficiary country was greeted with widespread interest, and a few Fijian businesses can take immediate advantage of the opportunities this affords in the U.S. market. The absence of a wide industrial sector, however, has limited Fiji's ability to respond more fully to the GSP products' list.

The signing of an OPIC agreement in January is likely to have a positive influence on the nature and scope of U.S. investments in Fiji, and is an indication of Fiji's interest in attracting such investments.

During 1975 the U.S. dollar strengthened in relation to the Fiji dollar, which may have offset some of the advantages enjoyed by U.S. exporters early in the year. This enhances the climate for long-term investments in Fiji, however, and Fiji seems to be prepared to provide assistance and encouragement in several key areas.

Calendar For World Traders

July 8—Columbia, S.C.—Midlands International Trade Club dinner meeting, Town House Motor Inn. For information, 803-765-8146.

July 14—Nashville—World Trade Council of Middle Tennessee meeting, Ramada Inn, James Robertson Parkway.

July 22—Greenville, S.C. — Greenville-Spartanburg International Trade Club, Textile Hall. For information, 803-233-2562.

Aug. 5—Memphis—Mid-South Exporters' Roundtable (program on Brazil).

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

U.S. Consumer Goods Catalog Exhibit at INTERFEREX 1976. Basel, Switzerland. Sept. 5-7. To be held in conjunction with INTERFEREX 1976, an international hardware trade fair which takes place every two years in Basel. Buyers from Switzerland and more than 20 additional countries are expected to attend. At INTERFEREX 1974, orders by Swiss purchasing agents alone totaled more than $65 million. Constant appreciation of the Swiss Franc against the dollar over a 4½-year period has made U.S. exports more price competitive in the Swiss market. U.S.-made goods which are a step ahead in design, efficiency, quality and marketing are generally favored in the sophisticated Swiss market. Robert E. Peterson, 202-377-3973.

Pollution Control Equipment Trade Mission to Belgium. Sept. 5-10. Rapid growth is anticipated in the Belgian market for air and water purification and other types of pollution control equipment throughout the last half of the 1970s. Total sales of these kinds of equipment are projected to reach $620 million by 1978, from an estimated 1975 base of $358 million. This represents a 21 percent average annual growth rate. Of this amount, water pollution control equipment will constitute 96 percent. This mission is being organized in conjunction with AQUATECH '76, which is scheduled to be held in Amsterdam, Sept. 14-18. Call Edward Oliver, 202-377-3746.

Do-It-Yourself Exbn. U.S. Trade Center, Tokyo. Sept. 6-10. Inflation, tight money, and the growing cost of services related to home rehabilitation, repairs, and maintenance as well as a renewed interest in personal creativity are encouraging growth in the do-it-yourself field. The market, $204 million in 1974, is projected at $505 million for 1978. This exhibition will display home/entertainment/garden do-it-yourself products and will include demonstrations by participating firms. Call John Wolf, 202-377-2461.

Computers and Peripheral Equipment Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Sept. 6-10. With markets for computers and peripheral equipment expected to exceed $20 million by 1980, Singapore offers attractive opportunities to U.S. suppliers. Ten sectors of the local economy will contribute to this increased demand, all of it supplied by imports. In addition, regional promotion will draw potential customers from the Southeast Asia region. This event is timed to coincide with a major Asian computer conference to be held in Singapore. Robert McLaughlin, 202-377-2471.

Automotive Maintenance and Servicing Equipment Catalog Exhibit. Taiwan and Korea. Sept. 13-17. Prospects are good for sales of automotive diagnostic and repair equipment in both Taiwan and Korea. The development of local automobile manufacturing industries, the increasing number of vehicles operating, the large-scale improvement of highways and transportation facilities now under way, and the growing concern of the respective governments about traffic safety have begun to create a demand for a wider variety of more technically advanced as well as less sophisticated motor vehicle maintenance and servicing equipment. The automotive maintenance and servicing equipment market in both countries is relatively new. This catalog exhibit will help to educate the Korean and Chinese vehicle service organizations and personnel in the latest technology and the variety and utility of high-quality, efficient, labor-saving maintenance equipment available from the United States. Robert E. Peterson, 202-377-3973.

Metalworking and Finishing Catalog Exhibit. Zaire and Zambia. Sept. 13-21. Zambia and Zaire are almost completely dependent on imports for supplying the demand for this equipment. Priorities for both countries are equipment used to update, maintain and repair existing industrial machinery. In conjunction with further development of mining and smelting activities, as well as the ambitions of these countries toward development of metal products industries, demand for metalworking and finishing is expected to expand. Early advertising and vigorous export promotion efforts by U.S. suppliers should pay off. Robert E. Peterson, 202-377-3973.

U.S. Exhibition in AQUATECH '76. Amsterdam. Sept. 14-18. This prestigious exposition, expected to draw 40,000 visitors from around the world, is an excellent opportunity for U.S. firms in the water equipment industry to enter into or gain increased sales in the rapidly growing European market. In 1975, an estimated $650 million was spent on water purification and pollution control equipment alone in the Netherlands, Belgium, France and Germany. Due to implementation of stringent legislation and rising concern over water quality, investment in equipment in this field is expected to exceed $2.6 billion during the 1976-78 period. George Ruffner, 202-377-4941.

Process Control Instrumentation Exhibition. U.S. Trade Center, Taipei. Sept. 20-24. The market for process control instrumentation in the Republic of China is growing at a strong pace. Purchases are expected to reach $15 million by 1978, double the level of 1973. U.S. manufacturers are expected to supply about one-third of this market, which is concentrated in the petroleum, coke, coal, utilities, services, chemical processing and primary metals industries. Julian Hammond, 202-377-4304.

Food Processing and Packaging Equipment Exhibition. Caracas. Sept. 20-25. The U.S. has a 50 percent share of the Venezuelan market for food and beverage processing and packaging equipment, estimated at $113 million in 1975. Demand growth of 10 percent annually is expected through 1979. This event is designed to take advantage of Venezuela's quest for self-sufficiency in food, as the government programs surplus oil revenues into agriculture and industry. A full range of processing; forming, filling and sealing; wrapping and packaging; marking and inspecting; and container/product/package handling equipment is required for all types and phases of the industry. Thomas L. Thomas, 202-377-4230.

In-Store Promotion. Taby, Sweden. Sept. 23-Oct. 2. Taby Centrum, a large shopping center located 12 km. north of the center of Stockholm, will stage the first in-store promotion held in a shopping center. Over 35 stores will participate in this Bicentennial theme promotion, including the Domus and Nordiska Kompaniet (NK) department stores, numerous apparel specialty shops, and jewelry, gift and appliance stores. Interested suppliers contact Theodor Rumme, Asst. Commercial Attache, U.S. Embassy, Strandvagen 101, Stockholm. List of store names and contact persons available from Charles E. Johnson, 202-377-4705.

SPOGA 76 — Sporting and Camping Equipment. Cologne, Germany. Sept. 25-27. Considered by most manufacturers as the world's major international exhibition for sporting and camping equipment. SPOGA 75 hosted more than 1,400 exhibitors from 35 countries and, in only three days, attracted 30,000 trade visitors from 71 countries. Commerce's pavilion will accommodate 30 U.S. manufacturers of appropriate equipment. Robert Wallace, 202-377-3748.

Packaging and Bottling Equipment Exhibition. U.S. Trade Center, London. Sept. 27-Oct. 1. The United Kingdom imported $81.3 million (c.i.f.) worth of bottling and packaging machinery in 1975. The United States supplied 20.8 percent of the market, a share that expanded by 4.3 percent over 1974, reducing

the West German lead from 16.4 to 7.5 percent. While Britain represented 4.2 percent of the entire world market for all U.S. exports in 1975 (f.o.b.), it took 8.6 percent of U.S. exports of packaging machinery. This exhibition of U.S. canning, wrapping, packaging, bottling, filling and sealing machines, equipment, and accessories will be directed to end-user trade audiences in both the United Kingdom and Republic of Ireland. Craig S. Atkins, 202-377-2881.

International Plant Engineering and Maintenance Exbn. and Conf., Birmingham, England. Sept. 27-Oct. 1. Capital investment in the United Kingdom manufacturing sector is estimated at $91 billion. Current economic pressures are forcing British manufacturers to strive for more efficient plant engineering and maintenance operations. Annual expenditures for plant replacement are reported to be $6.9 billion, including $2 billion for materials. Recent U.S. technological developments provide American manufacturers with a decided advantage in supplying pollution control and safety equipment. Other product categories which offer good potential include materials handling equipment, heating and ventilating equipment, paint and corrosion treatments, lubrication equipment, pumps, valves and compressors, power generation and distribution equipment, maintenance tools, supplies and services, compressed air and hydraulics equipment, noise and vibration controls, and metalworking and welding equipment. Suresh (Sam) K. Dhir, 202-377-4421.

In-Store Promotion. Edinburgh. October. Jenners, the prestige retail outlet of Edinburgh, Scotland, will feature a U.S. Bicentennial promotion for two weeks. Product categories of interest include all types of apparel, fabrics, linens, housewares and furniture. Store contact: Mr. J. McDermott, Jenners, 48 Princes St., Edinburgh EH2 2YJ. U.S. buying office: Affiliated Traders Ltd., Attn. Miss Aeta Salba, 220 Fifth Ave., New York, N.Y. 10001. Mollie Cleveland, 202-377-4705.

Machine Tool Catalog Exhibit. U.S. Trade Centers, Singapore, Taipei, Sydney. October. Added feature is a sound and color video tape recording. Officials of key metalworking and finishing firms will be invited to view film and catalogs and talk to a representative of the National Machine Tool Builders' Assn., which is assisting with show. Frederic J. Gaynor, 202-377-3846.

Technical Sales Seminar in Pharmaceuticals. Poland and Hungary. October. Plans to expand pharmaceutical production and pharmaceutical imports in both countries makes this an event which U.S. pharmaceutical manufacturers should not pass up. Call Gary Roberson, 202-377-3376.

Port Development Technical Sales Seminar. Saudi Arabia, Egypt and Morocco. Oct. 3-15. Areas of specific interest include port consulting and engineering, deck and engine room machinery, materials handling and cargo control equipment, ship service and repair systems, shipyard productivity and improvement systems, anti-corrosion materials, anti-pollution equipment and communications and control equipment. E. Lee Carteron, 202-377-2973/4.

Building and Construction Equipment and Supplies Exhibition. U.S. Trade Center, Paris. Oct. 4-7. Excluding common stone and wood, the market for these products in 1975 was $15 billion and is expected to grow to $19 billion by 1980. For further information contact Robert B. Wallace, 202-377-4976.

Mineral Production & Processing Technical Sales Seminar, Jakarta and Kuala Lumpur. Oct. 5-14. Foreign investment contracts approved since 1967 valued at well over $500 million are still being implemented, and new contracts are now being generated as private participation interests are encouraged by the Indonesian Government in further development of the country's large mineral resources. Malaysia's acknowledged world leadership in the production of tin is realized in the nearly $600 million in annual exports: new tin production investment is growing as private participation contracts become more widely used in tin as well as in copper and coal extraction. Seminars conducted in these two countries will feature presentations from seven American companies on the fundamentals of modern extraction and processing of non-oil minerals of the area. Sales appointments with key buying officials will supplement the technical seminar sessions in each city. Contact W. Brad Tyrrell, 202-377-4304.

Business Systems Exhibition. Tehran Trade Center. Oct. 10-14. Iran is the fastest growing market for U.S. exports in the world. Over the last two years, our exports to Iran quadrupled to $3.2 billion. Much of Iran's approximate $20 billion oil income goes to industrial and business growth. This force-feeding of economic growth offers excellent sales opportunities for American suppliers of computers and business equipment. Within three years the Iranian import market for business systems will amount to $63.5 million. Don Ryan, 202-377-2952.

In-Store Promotion. Shalom Stores Ltd., Tel Aviv. Oct. 10-31. Shalom is planning a major Bicentennial promotion of U.S. consumer products. U.S. buying office is Marcent Int'l. Inc., Attn. Kurt J. Heilbronner, V.P., 200 Park Ave., Suite 5305, New York, N.Y. 10017. Mollie Cleveland, 202-377-4705.

Electronic Components Catalog Exhibit. Barcelona. Oct. 11-19. To be held in conjunction with the Image, Sound and Electronic Trade Fair (Sonimag), a major annual event in Spain. In 1975, U.S. exports of electronic components to Spain amounted to approximately $3 million. The Spanish Government has ambitious plans for expanding the electronic/telecommunications industries. In 1974, it decreed preferential interest to the electronics industry. Demand for electronic equipment is expected to increase by 13 percent annually, and production by 17 percent, presenting excellent opportunity for U.S. exporters. Robert E. Peterson, 202-377-3973.

Chemical Industry Equipment Exhibition. U.S. Trade Center, Milan. Oct. 12-16. Italy's chemical industry is the fourth largest in Europe, with production of primary chemicals totaling $12.7 billion in 1974. Estimates through 1990 indicate that the chemical sector will enjoy growth rates of around 20 percent annually over the total period. U.S. technology in this field is highly regarded. Held concurrently with the MAC International Chemical Exhibition at the same location, it will provide U.S. firms access to a number of European and Mediterranean markets. Sam Spaulding, 202-377-4508.

Energy Systems Technical Sales Seminar. Madrid, Barcelona, Belgrade and Zagreb. Oct. 17-30. Rapidly increasing power needs requiring the development of hydroelectric, thermoelectric and/or nuclear power, plus improving economic conditions, provide significant opportunities for U.S. technology and equipment sales in Spain and Yugoslavia. Sales of energy equipment and systems will grow in accordance with Spain's Energy Plan, which calls for doubling energy production in the next decade. The Yugoslav Government has set a goal of expanding hydroelectric plants from 4,600 MW to 9,400 MW and thermoelectric plants from 4,000 MW in 1975 to 10,500 MW in 1980. Jonnell Jacobson, 202-377-4918.

Electronic Components Catalog Exhibit. Amsterdam. Oct. 18-22. To be held at the International Industrial Electronics Trade Fair (FIAREX), the key Dutch trade event focusing on this theme. The Netherlands is an important market for sophisticated electronics, as it is a major producer of telecommunications equipment, computers, electronically controlled industrial equipment, instruments, and consumer products. Agents and distributors of electronic components are eager to locate new suppliers or to learn about the newest U.S. products. Robert E. Peterson, 202-377-3973.

Technical Seminar on Machine Tools. Czechoslovakia, Hungary and Bulgaria. Nov. 6-20. These countries offer growing markets for U.S. manufacturers of machine tools. Company participants will present technical papers in each country to a highly select audience of buyers, technicians, and end-users. Contact Judith Robinson, 202-377-3376.

Commercial/Industrial Safety & Security Equipment Exhibition. U.S. Trade Center for Scandinavia, Stockholm. Nov. 8-12. A highly developed awareness of safety/security needs exists in both the public and private sectors of the four Nordic countries. Recent surveys of the markets of Sweden, Norway, Denmark and Finland have identified excellent sales opportunities for U.S. exporters of advanced safety/security products that have applications in offices, factories and institutions. Indicative of this market potential are U.S. exports of this equipment to the Nordic countries—$28 million in 1975, a 37 percent increase over 1974. In Sweden, home of many large multinational corporate headquarters, the U.S. supplies 11 percent of the $35 million fire safety equipment and 15 percent of the $32 million security equipment import markets. Call William Beiring, 202-377-3276.

Computers and Peripheral Equipment Exbn. and Seminar, U.S. Trade Center, Sydney. Nov. 8-12. The Australian computer/peripheral market is currently valued at over $211 million. The U.S. is Australia's leading supplier with a market share of about 50 percent. However, competition is intense with strong competition coming from the U.K., West Germany and Japan. Total computer consumption in New Zealand totaled $14 million in 1974; the U.S. accounted for $4.2 million. An annual growth rate of 10-15 percent is predicted. Call Don Mathes, 202-377-4957.

Communications Systems & Equipment Exbn. U.S. Trade Center, Taipei. Nov. 15-19. Taiwan, a booming market primarily oriented to U.S. sources for its substantial imports of advanced hi-technology communications gear, has embarked on a massive modernization and expansion program. Heavy growth is seen from 1977-78, especially in telephone

equipment needs. This event will feature data communications with latest dial-up systems, C.C.T.V., microwave, transceivers, and monitoring & testing gear. High sales prospects are further supported by a U.S.-source Eximbank loan of $27 million for PABX boards, coax cables, microwave, toll switching, traffic counting and engineering/consulting services. Dave Horridge, 202-377-2798.

Food Processing and Packaging Equipment Specialized Trade Mission. Kenya, Cameroon and Ivory Coast. Nov. 15-30. These countries are among the many developing nations which are paying increasing attention to the problem of food supply and the development of agriculture-based export industries. The mission will visit Nairobi, Kenya; Yaounde and Douala, Cameroon; and Abidjan, Ivory Coast. Participation is open to U.S. suppliers of machinery, equipment and services for grain milling, sugar processing, dairy processing, butchering and meat and poultry processing, fish catching and processing, baking, ice-cream and candy making, edible oil processing, freeze drying, dehydration, refrigeration and packaging. For information call Bertic Renborg, 202-377-3741.

Engineering Design Components. U.S. Trade Center, Milan. Nov. 23-27. Components, materials and technology in the machinery, automotive, aerospace, and other equipment and electro-mechanical industries will be featured. Transmission components, hydraulic and pneumatic components, electrical and electronic controls, special materials, shapes and forms, joining systems and components are included. U.S. products have tremendous potential in this market. Runs concurrently with BIAS, international automation engineering exhibition, at the same fairgrounds. J. Michael Springmann, 202-377-4975.

HEVAC-76 International Trade Fair. Tehran. Nov. 24-30. The United States is still Iran's No. 1 supplier, claiming better than a 20 percent share of a market the U.S. Department of Commerce predicts will go to $40 billion by 1980. The rapid increase in population, the jump in national income as a result of oil price increases and a dramatic rise in the standard of living within the past decade have considerably intensified construction requirements in Iran, particularly in housing. The market for HEVAC equipment has grown from $150 million in 1975 to an estimated $340 million in 1976. According to the Fifth Development Plan (1973-1978), approximately $6 billion is targeted to improve the housing situation. In order not to let these orders go by default to foreign competition, the U.S. Department of Commerce is planning this showcase for heating, ventilation, air-conditioning, plumbing, refrigeration and sanitation equipment, architects/engineers and contractors. Call Franc Manzolillo, 202-377-2991.

Electronica 76. Munich. Nov. 25-Dec. 1. Germany's total consumption of electronic components is predicted to exceed $1.7 billion in 1977, while the market for electronic production and test equipment is expected to reach $343 million. In both categories, imports account for more than 40 percent of the entire market and the United States is the country's leading supplier with a share of about 28 percent. Best sales opportunities exist for U.S. exporters of color TV tubes, capacitors, resistors, integrated circuits, diodes, transistors, production and test equipment, and materials. Best market prospects are in computers, measuring and testing instruments, industrial equipment, and medical electronic equipment. Don C. Schmadel, 202-377-2177.

Telecommunications Equipment & Systems Exhibit (JEEP). Paris. Nov. 29-Dec. 2. Significant opportunities for exports should arise in the entire telecommunications market as a direct result of the French Government's recently announced massive program to increase the telephone system's capacity some 300 percent during the period 1976-1980; about $10 billion will be expended on equipment purchases. Some 6-8 new-to-market firms will be eligible for this event. Contact Ned Krause, 202-377-5381.

Analytical Instruments for Science and Industry Exhibition. U.S. Trade Center, London. Nov. 29-Dec. 3. The British market for analytical instruments for science and industry was valued at $85 million in 1974. Expanding technology, increased investments by industrial and government laboratories, and a general economic recovery should push the market to $100 million in 1979. Imports from the United States, which account for more than 25 percent of the total market, are expected to jump from $22 million in 1974 to $32 million in 1979. U.S. firms are the leading import suppliers of four categories of products—automatic analyzers, gas chromatographs, oscilloscopes, and atomic absorption spectrophotometers—and have obtained a large share of the British market through their technological superiority and effective marketing practices. Robert L. Bradshaw, 202-377-4461.

Metalworking, Finishing Equipment and Machine Tools Product Literature Display. Johannesburg and Cape Town. Nov. 29-Dec. 8. In 1972, South Africa's apparent consumption of metalworking, finishing equipment and machine tools registered $68.8 million; for January-September 1975 this figure rose to $161.1 million. Local production accounts for only about 6 to 7 percent of these market figures. Over the last few years, there has been substantial growth in the local industries that rely on the machine tool industry, partly because of the need to upgrade quality as a result of the increasingly stringent local programs supporting South African industry. This product literature display should provide an excellent opportunity to attract the attention of South Africa to the latest advances in technology in U.S. products. Robert E. Peterson, 202-377-3973.

Pulp, Paper and Converting Machinery and Equipment Trade Mission to Brazil. Dec. 1-10. The Brazilian pulp and paper industry has grown rapidly over the last ten years in order to satisfy an exploding domestic demand. Production doubled in the 1967-1973 period alone. Foreign investors have begun showing interest in Brazil as a source of pulp and paper for the world market over the medium and long-term. To date, exports have not been significant, and imports have grown substantially. However, ambitious plans have been announced to make Brazil both self-sufficient in paper and a major exporter of pulp (two million tons) by 1980. Investments of $2.75 billion will be required for achievement of the 1980 goals. Forty percent of this, or $1.1 billion, has yet to be committed, according to government figures. Longer-term goals (over the next 20 years) see investment of $17 billion in the pulp and paper industry and export earnings of $51 billion. Call William J. Bushwaller, 202-377-4511.

Industrial Process Controls Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Dec. 6-10. The Singapore Government's plans for a major petrochemical complex and new construction in the electrical energy sector are expected to push sales of process control instrumentation to $12.5 million by 1978. Singapore's requirements for these products are met entirely by imports. To participate contact J. Lee Barnes, 202-377-3893.

ECOLOGY '77—Environmental Purification and Pollution Control Instrumentation and Equipment. U.S. Trade Center for Scandinavia, Stockholm. Dec. 6-10. Sweden, Norway, Denmark and Finland, currently and individually warring against pollution, have programmed an aggregate total of $2 billion plus to be spent on environmental protection by 1984. A significant portion of this amount will be earmarked for the purchase of instrumentation, equipment and controls. Robert J. Blake, 202-377-3088.

Plant Engineering and Operations Equipment Exhibition. U.S. Trade Center, Mexico City. Dec. 6-10. Mexico's rapid strides toward industrialization have created a strong demand for broad-based plant modernization equipment. This show will feature and focus in on selected lines of equipment designed for inside-the-plant operations, principally in the areas of: industrial water treatment; specialized materials handling devices; assembly line automation; industrial machinery lubrication; in-plant pollution prevention and control; and pneumatic/hydraulic controls and systems. All of these categories are finding an increasing market within the sectors of Mexican medium and heavy industry establishments which are desirous of achieving higher output and efficiency through plant modernization. Damon LaBric, 202-377-4463.

Offshore International Exhibition. Birmingham, England. Dec. 7-10. The continuing development of North Sea oil resources offers good opportunities for U.S. suppliers of oil and gas field exploration, production and transmission equipment, instruments, systems, supplies and services. U.S. exports of oilfield equipment and pipe to countries active in the North Sea oilfields are substantial and growing. U.S. exports to the United Kingdom alone in 1975 totaled $32 million, up from $19 million in 1974 and $11 million in 1973. Demand is highest for oilfield equipment and pipe, but sales opportunities also exist for a wide range of supportive products, e.g., floating structures (rigs, barges, vessels, tanks, etc.), helicopters, telecommunications equipment, valves, processing and field instruments, welding equipment and drilling fluid. At least five new North Sea fields are expected to open by the end of this year. A $3 billion market for products and services is expected in 1976, with the total rising to $5 billion by 1980. Official exhibits will be mounted by many countries. George A. Kemp, 202-377-3713.

Advance Business Equipment and Systems Exhibition and Seminar. Taipei. Dec. 13-17. This JEEP (Joint Export Establishment Promotion — for new-to-market participants only) will focus on a rapidly growing market in the Republic of China. The economy in Taiwan has recovered strongly from the recent world recession. Imports of U.S.-produced business equipment and systems are expected to reach $17.5 million by 1979—up from $11.2 million in 1974. Peter Wilson, 202-377-4227.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

NIGERIA—Consulting firm with government and private clientele is interested in making contacts with U.S. firms active in following: **roadbuilding, grain-storage construction; food processing; poultry production; also production of medical equipment, telecommunications equipment, pharmaceuticals, fertilizers.** Representative of company is in U.S. for discussions with interested American firms. Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76478. OPIC.

2035, 2032—ARGENTINA — Consulting firm seeks licensing arrangements with U.S. firms engaged in **food processing,** particularly **dietary and pickled foods.** Leon Mehl, Mgr., Dresdner & Assoc., Suipacha 472, Piso 2, Of. 203, Buenos Aires. P-76516. OPIC.

2087—MEXICO — License is sought to make **softdrink flavor concentrates.** Firm is expanding its line to include flavors of fruit not grown in Mexico, including blueberry, boysenberry, root beer. Company seeking technology is large, was established in 1950, is manufacturer of fruit juices and flavor concentrates such as pineapple, grapefruit, orange, lime, lemon. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. WTDR. P-76480.

2211, 2221—MEXICO — U.S. technology desired to produce **high-quality polyurethane covered fabrics.** Interested firms should send samples of finished product. Representative of firm is prepared to visit prospective business associates. Firm is large, was established in 1961, manufactuers laces, scarves, tablecloths, curtains. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. WTDR. P-76481.

2599—GERMANY—A leading manufacturer of **hospital and other medical furniture** seeks licenses to expand its production. Company was established 1901, has 1,200 employees. L. & C. Arnold GmbH, Postfach 13, Arnoldstr. 13, 4152 Kempen 1. P-76482.

2649—SAUDI ARABIA—Seeks joint venture to **convert waste paper products into cardboard for use in roofing materials, luggage and boxes.** Proposed plant would produce 15 to 20 tons of cardboard per 5½-day week. U.S. participant asked to provide machinery, technical know-how, 30 percent of capital. Saudi firm will invest 70 percent. Saudi company produces, distributes all types of paper and board. Employs 310; reports annual sales of $5 million. Walt Blomquist, Exec. Dir., International Agents, P.O. Box 922, Jidda; telex, 56-7482 INTERMETAL ORL, attn: ITC; phone, 21750. P-76479. WTDR. OPIC.

2834—FRANCE—Seeks licenses to manufacture **sustained-release capsules mainly for cardiovascular system and anti-inflammatory drugs.** Will also consider any type of pharmaceutical preparation. Established 1921, firm is part of LABAZ group (Petrole d'Aquitaine). Employs 825, has annual sales of $23 million; is manufacturer and sub-contractor for pharmaceutical products. Mr. Dubois, Marketing and Sales Mgr., Fevrier Decoisy Champion S.A., 60, rue de Wattignies, 75579 Paris Cedex 12. Telex, 680 287; telephone, 343-7800. P-76483.

3241—SAUDI ARABIA—Seeks to establish **storage and packing cement plant** with capacity of one million tons per year at coastal point in Saudi Arabia. Plan calls for import of cement in bulk, storage in silos for packing in bags, and sales in bags or bulk to local consumers. Firm desires joint venture arrangement or supply and technical assistance. National Industrial Co., P.O.B. 1394, Riyadh. Cable: RIALCOM. P-76484. OPIC.

3295—ARGENTINA — Firm seeks contact with interested U.S. companies to establish joint venture operation for exploitation of **kaolin reserves** in Chubut, south of Argentina. Concern owns, operates well-known porcelain plant in Monte Grande, near Buenos Aires, where it manufactures insulators. It also owns land in Chubut where it obtains kaolin for use at Monte Grande plant. Kaolin reserves are estimated at nearly 200 million metric tons. American firms should be in position to provide know-how and some capital investment; Argentine company will contribute capital investment and mineral reserves. Prof. Leopoldo A. Armanino, Pres., Fabrica Argentina De Porcelanas Armanino SAIC, Piedras 383, 4 Piso, 1070 Buenos Aires. Telephone: 331071. P-76485. OPIC.

3296 — GERMANY — Seeks licensing arrangement and technical assistance for production of **insulation materials** against heat, cold and sound. Firm is particularly interested in obtaining technical know-how to produce insulation from mineral wool for use in tubes and pipes. Company is one of West Germany's leading manufacturers and worldwide exporters of various types of insulating and lagging materials, putties and paints for use in building and construction trades. Established in 1928, employs 4,000. Otto Haus, Rheinhold Mahla AG, Augusta Anlage/ Karl-Reiss-Platz, VKI Haus, D-6800 Mannheim. Cable, KUNDSTSTOFF-UNION; telephone, 0621-40011; telex, 463167. P-76486.

3312—FRANCE—Small company specialized in manufacturing large **metallic structures** for various consumer industries such as truck manufacturers, railroad companies, crane manufacturers, is interested in producing under license allied products. Employs 80 skilled workers, operates facilities covering more than 5,300 sq. meters. Patrick Smyl, Service Commercial, Societe Monnin, 109 route de Conches, 71670 Le Breuil. P-76487.

3400, 3700—BELGIUM — Manufacturer of **railroad rolling stock, cranes, bridges, bus frames and metal fabrications** is interested in licensing arrangement to produce **allied products.** For further information write Ms. Doris Atkind, Trade Promotion, European-American Bank &

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Trust Co., 10 Hanover Sq., New York, N.Y. 10005; telephone, 212-437-4300. P-76488.

3411 — FRANCE — Representative of French firm is seeking licensing agreement with U.S. firm for manufacture of **food containers** which can be encased and stacked when empty. Containers should be manufactured either in plastic material, steel wire or light metal sheet. Pierre-Alfred David, Consultant, 18, rue Jacquot Defrance, 54520 Laxou. P-76515.

3469—EGYPT — Firm desires to enter into joint venture with U.S. firm for production in Egypt of **enameled utensils and cookers.** Company, established 1964, has capital of US$1 million and annually produces 800 metric tons of enameled housewares, butane gas cookers and street traffic lights. Plans expansion of its metal enameling department, by installing new machinery and using modern technology to produce 5,000 metric tons per year of kitchenware and butane gas and electric cookers. Presently has under construction a 17,000 sq. meter building for housing new plant. U.S. firms interested in project are required to supply machinery, equipment and technology to complete plant, including necessary dies, production process documents and training of Egyptian technicians and engineers. Alexandria Metal Products Co., S.A.E., 72, Shaheed Galal Dessouki St., Alexandria. WTDR. P-76514. OPIC.

3500 — GERMANY — Manufacturer of materials handling equipment wants to expand its product line. Is interested in licenses to produce **grinding machines, coil compressors, wire twisting machinery, testing and dressing equipment, steel building constructions and paper and materials handling machines.** Firm employs 400, markets in EEC, EFTA, other countries. Good reputation. J. H. Schmitz & Soehne, Koenigstr. 47, 41 Duisburg 17. P-76489.

3500 — SWEDEN — Large supplier of **materials for building construction industry** wishes to conclude cooperative arrangement with U.S. firm to join in bidding on supply contracts in third countries. Swedish firm is often asked to supply full range of building materials and equipment, including following: sanitary equipment, electric water bottle coolers, cold water booster systems, electric water heaters, fire extinguishers, boilers, pumps, compression tanks, air separators, air handling units, exhaust fans, temperature control systems, louvers, lighting and power panel boards, transformers, lighting fixtures, telephone systems, fire alarm systems, diesel electric generating units and controls, hydropneumatic pressure systems and elevators. Lars Lindblom, Ahlsell & Agren AB, RVS Central Export, Fack, S-104 60 Stockholm. Telephone. 08/14 01 60; telex, 11666. WTDR. P-76490.

3523—SAUDI ARABIA — Seeks technology, know-how for **machinery utilized in farming, cattle and sheep breeding.** Abbas Ali Nour, Partner, Saudi Marble Co., P.O. Box 1187, Jidda. P-76440. OPIC.

3530, 3551, 3559—NORWAY—Seeks joint venture or licensing agreements to **manufacture engineering products** to be marketed in western and eastern Europe and East Asia. Suggested fields include petrochemicals, anti-pollution, food processing, building and construction, and forestry. Company is 1968 amalgamation of two long established firms. Employs 750 in Norway, has subsidiaries in Spain and Japan. Firm, member of Kvaerner Group with 7,000 employees, just moved into new $40 million plant with metal foundry, plate and machine shop. Items produced include pumps, filters, separators, locomotives, armored vehicles and machinery for pulp and paper industry. Narve Hundseid, V. Pres., Industrial Div., Thune-Eureka A/S, POB 38, N-3401 Lierbyen. P76491.

3540, 3554—SWEDEN—One of Sweden's largest firms seeks **marketing arrangement** with one or two U.S. firms to bid on international tenders. Two product areas of interest to Swedish organization are machine tools of all types, and paper converting machinery. Company is prepared to send engineer to U.S. to discuss details. Interested manufacturers or large scale distributors should write: Bendix Morsten, Mng. Dir., Elof Hansson International AB, Forsta Langgatan 19, S-413 03 Goteborg. Telephone, 031/12 46 00; telex, 2530. P-76492.

3545 — SWITZERLAND — Manufacturer and representative of metal-working machine tools, dies and related accessories is interested in licensing agreements to produce **parts and accessories for use** with machine tools. Would include automatic loading arms, feeding systems, hydraulic parts aud complete systems for automatic controls of industrial machinery. Eastblished 1941, employs 100. A. Habs, Director, Prematex SA, Fabrique de machines-outils, 31, Rue de Lausanne, 1110 Morges. P-76493.

3564—JAPAN — Seeks unique, advanced technology to produce air cleaning, **deodorization and sterilization units or combinations** of such equipment for use in rooms and buildings. Firm is a leading manufacturer of unit type air conditioners and fluoro chemical products. Has annual sales of $300 million, employs 6,200. Operates four plants in western Japan, has sales offices in major cities. Has various licensing agreements with foreign concerns covering air conditioners, hydraulic transmissions and compressors. Minoru Yamada, Pres., Daikin Kogyo Co., Ltd., Shin-Hankyu Bldg., 8, Umeda, Kita-ku, Osaka 530. P-76494.

3568—FRANCE—Seeks license to manufacture any **power transmission equipment.** Firm produces gears, transmissions, speed changers, drives. Employs 300; annual sales, $7.5 million. Good reputation. Jacques Wybo, Commercial Mgr., Constructeurs Associes de Transmissions et Engrenages de Precision, CATEP, 51, boulevard St. Denis 92405 Courbevoie. P-76495.

3569—BRAZIL—Producer of sewage and industrial waste treatment equipment seeks license to manufacture **rotostrainers** for sewage treatment. Firm makes aerators, automatic screens, equipment for settling tanks and separators for locomotive fuel systems. Its well equipped plant is located in one of main industrial centers of Rio de Janeiro. Dr. Marcello Dantas Leite, Superintendente, GEOSAN Equipamentos e Engenharia de Saneamento Ltda., Rua Rodrigo Silva 34-6° andar, 20000 Rio de Janeiro. WTDR. P-76496. OPIC.

3569 — UNITED KINGDOM — Seeks licenses to manufacture any type of **packaging equipment, laminators or label-making machinery.** Firm currently produces flexographic printing machines, polythene bagmaking machines and extruders and web guide control equipment. Employs 300, is subsidiary of large company. A. F. Davies, Mng. Dir., Simon-VK Ltd., Arrowebrook Ltd., Upton, Wirral L49 0XB, England. P-76497.

3585—AUSTRIA — Seeks to collaborate with U.S. firms in **international marketing** ventures particularly in Austria, Eastern Europe and Middle East. At present, firm is primarily interested in **industrial and commercial air conditioning equipment, industrial process machinery and materials handling equipment.** Company prefers to handle products requiring some kind of input such as assembling, engineering, or addition of locally manufactured components. Also wants to produce under **license or joint venture high technological products.** Specializes in fabrication of metal and plastic goods primarily for laboratory and industrial use. Anton Kornfeld, ROTARY — electronic Ges.mbH, Sportsplatzgasse 5, A-2525 Guenselsdorf. P-76498.

3585—NIGERIA—Firm seeks joint venture arrangement with U.S. company for manufacture of **air conditioners.** Specializes in installation and maintenance of air conditioning and ventilation systems. George Spiropoulos, Pres., Chemech Engineering Co., P.O. Box 1991, Lagos. P-76499. OPIC.

3600—UNITED KINGDOM—Large manufacturer and distributor of **ignition equipment, lighting equipment, switchgears** seeks licenses. Is interested in making any products compatible with its present lines. Employs 15,000, has annual sales of $200 million. J. V. Wilkinson, Director & Gen. Mgr., Lucas Electrical Ltd., Great King St., Birmingham B19 2XF, England. WTDR. P-76500.

3612—ITALY — Well known manufacturer of distribution transformers up to 2,500 kv.-a. seeks license. Wants technical know-how to produce **aluminum windings** to replace those of high conductivity copper presently used in their transformers. Is eager to conclude licensing arrangement with U.S. company. Ing. Zennaro, Owner & Pres., Zennaro Construzioni Elettriche S.A.S., Via Volta 4/C 30175 Voghera. P-76501.

3622—GERMANY — Interested in cross licensing, exchanging technology in the field of **electrical and electronic steering and drive systems.** Areas of interest include **direct current servo motors, step motors and associated equipment.** Established in 1904, firm has 20 employees. Has 11 sales representatives in Germany. Eduard Bautz, Eduard Bautz GmbH, Stiftstrasse 10, 61 Darmstadt. Telephone, 06151-44001; telex, 4-19461. P-76502.

3660—BRAZIL — Medium-sized manufacturer of telecommunications equipment seeks license. Wants to produce **time division multiplexing, modem for transmission of data and electronic telex centers.** Firm makes teleprinters, transmitters, telephone coils, receivers and related electronic components. Has 250 employees; sells throughout Brazil. Supplies Federal Government entities. Sergio Henrique Silva, Presidente, E. E. Equipamentos Electronicos S.A., Rua Frei Fabiano, 215, 20.000 Rio de Janeiro. WTDR. P-76503. OPIC.

3662—NEW ZEALAND—Seeks licensing or joint-venture arrangement for manufacture of **ceiling or wall-mounted smoke alarms for household, hotel and other domestic uses.** G. John Farmer, Mng. Dir., G. J. Farmer Ltd., P.O. Box 38-396, Auckland. Cable, INJUN; telex, NZ2974; telephone, 566-817. P-76504.

3662—UNITED KINGDOM—Seeks licenses to manufacture **encoders and decoders and other electronic parts for use in audio-visual equipment.** Firm designs and produces audio-visual presentations, also designs software. Has designed and

manufactured three-screen audio-visual presentation system. Gustaaf Thies, Chairman & Creative Dir., Sonicon Ltd., 2 Bentley Ct., 72 Kensington Gardens Sq., London W2 4DQ, England. P-76505.

3679, 3545—SWITZERLAND—Seeks collaboration with U.S. firms to produce **diamond discs** for industrial use and **quartz crystals** for electronic applications including digital watches. Firm is small, well established, highly specialized manufacturer of industrial diamonds, diamond tools, needles, etc. Employs 32 people. Benz Mikrodiamanten, Landstrasse 20, 8450 Andelfingen. P-76506.

3714 — FRANCE — Firm interested in manufacturing under license **automotive equipment or accessories and technical equipment** which could be produced in its iron foundry. Firm has three departments: foundry, mechanical construction, industrial equipment. Company employs 400, reports annual sales of $13 million. Lionel Vessiere, Ets Chenesseau, 19, avenue de la Liberation, B.P. 2239, 45012 Orleans Cedex. Telex, 780 154; phone 38 87-81-00. P-76507.

3724 — FRANCE — Seeks licensing arrangement to manufacture **avionics equipment.** Items of particular interest are engines, high precision mechanical parts and components. Presently manufactures spare parts for French and foreign jets, fittings for aeronautical industry, high precision mechanical tools. Also repairs following types of aircraft engines for French Ministry of Defense and private companies: Pratt & Whitney, Wright, Continental, Lycoming, SNECMA, Renault, Regnior and Potez. Firm established 1957, employs 385. Charles Jouffre, Commercial Mgr., Societe de Construction et de Reparation de Materiel Aeronautique, 6 rue Marceau, 92133 Issy-les-Moulineaux, France. WTDR. P-76508.

3823—INDIA—Seeks technical assistance for manufacture of **flow sensors, digital indicators, controllers and recorders.** Firm proposes to establish new plant in Nagpur's Industrial Park, about 520 miles from Bombay. Company is willing to import balancing machinery. Proposal envisages marketing 80 percent of proposed production locally, and exporting remaining 20 percent. Project falls under India's small industry category and therefore does not call for industrial license from Indian Government. Firm plans to determine project details in consultation with potential U.S. partner. N. S. Chandak Courtney, Process Instruments Manufacturing Co., 129A Ramdaspeth, Nagpur 440 010. WTDR. P-76454. OPIC.

3823 — SWITZERLAND — Well known concern seeks, for affiliate in Germany specializing in process control and automation, license and exchange of know-how in two fields: **software and complete programs for application in advanced electronic process automation and control, involving single machines to full scale production plants;** and **related programming and input units, as well as systems and devices for interfacing of control and indicating instruments.** Swiss corporation employs over 1,200, has plants in Netherlands, Italy, France, Germany. Specializes in process control and automation. Fritz Weber, Pres., Weber, AG, 6020 Emmenbrueke. P-76509.

3842, 3069—GERMANY—Seeks licensing arrangement and technical know-how for manufacture of **synthetic and natural gloves** for medical, surgical and industrial use to complement its existing line. Firm, established 1948, manufactures and distributes personal safety products, including rubber gloves of various types. Has developed into one of West Germany's largest manufacturers in this field. Sells on worldwide basis. Guenter Pape, Prokurist, Rex Gummiwarenfabrik, Ostendstrasse 5, D-6102 Pfungstadt. Telephone, 06157-2057; cable, GUMMIFABRIK PFUNGSTADT. P-76510.

3861—UNITED KINGDOM — Producer and designer of audio visual presentations seeks joint venture arrangement for manufacture of **audio visual equipment.** Company has designed and manufactures Sonicon MM-330, a three-screen audiovisual presentation system, which can accommodate six slide projectors (80- to 140-slide capacity) or three filmstrip or film cassette projectors or combination of both to provide mixed-media presentations. Sound is provided through two 8-ohm high-fidelity speakers under screen housing, each capable of handling up to 100 watts of continuous power. U.S. company will be expected to provide financial backing and possibly marketing expertise. For further information, write: Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76511.

Malaysian Investment Talks Scheduled For U.S. In Fall

The Malaysian Federal Industrial Authority, in cooperation with three major American banks, is sponsoring a series of investment conferences in the United States this fall. Primary purpose of the conferences is to highlight investment opportunities in Malaysia. The tentative schedule calls for seminars in San Francisco, Sept. 23-24; Chicago, Sept. 27-28; and New York, Sept. 29-30.

The Malaysian delegation will be led by the Minister of Trade and Industry, Datuk Hamzah Abu Samah. He will be accompanied by senior officials from other government agencies. The agenda will include presentations by the Malaysian delegation, a film and a question and answer period. Time will also be available for individual sessions with U.S. companies interested in pursuing specific Malaysian projects. For further information write: Subra Maniam, Director, Federal Industrial Development Authority of Malaysia, Transamerica Pyramid, 600 Montgomery St., San Francisco, Calif. 94111; or Eng-Che Low, Director, Federal Industrial Development Authority of Malaysia, 600 3rd Ave., New York, N.Y. 10017.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Anthracite coal

1111XXX—SOUTH AFRICA—60,000 tons anthracite coal: size 8mm x 20mm: for manufacture of bituminous products. Local firm which assures that it can obtain bank guarantees for purchase of this coal, wishes to bid for third country supply contract. Requires f.o.b. nearest port quotes ASAP. Contact: Allison—Marketing Mgr., Terminex (Pty) Ltd., P.O. Box 3883, Alrode 1451. Tel: 011/664-6606.

Highway & street construction

16100 — GUATEMALA — The Bureau of Public Highways (Direccion General de Caminos) is inviting highway construction firms interested in participating in upcoming government highway projects, to present their application for inscription in register of prequalifying firms of Direccion General de Caminos (DGC) in order to qualify for future bids. Construction firms that wish to prequalify and are not already in the register of prequalifying firms must be from Inter-American Development Bank member countries. Such firms must submit applications and other pertaining documents by Aug. 5, to be registered in any or all of following specialties: A) earthmoving works, B) bridge construction, C) highway drainage structures, and D) paving works. Construction firms which regis-

tered with the DGC before 1976 must renew their registration by Aug. 5, or their registration will be automatically voided. Firms which presented their applications for prequalifying purposes within 1976 need not apply again. Application forms may be obtained in exchange for 500 sheets of letter size, 80 gram, white mimeograph paper at Secretaria Comision Precalificadora, Departamento de Especificaciones, Division Tecnica, Direccion General de Caminos, Salon No. 7, Finca "La Aurora," Zona 13, Guatemala City (Tel. 60011, Ext. 35). All documents must be presented in Spanish or translated by a sworn translator authorized by Government of Guatemala.

Heavy construction

• **16200—LIBERIA**—Bids are invited for complete construction for central water supply systems for three upcountry cities. Tender is subdivided into three lots which may be offered separately as well as completely. Division of lots corresponds to systems in individual cities as follows: Lot 1, Voinjama; Lot 2, Sanokole; Lot 3, Gbarnga. In general, lots comprise the following construction measures: erection of a river water intake treatment station with capacity of 900-1350 Cu. Mt. (234,000-350,000 gals.) daily; elevated tanks and distribution network with public taps and service. Fee for each set of tender documents is: U.S. $300 (DM 780) surface, or U.S. $330 (DM 860) air freight. Organizations involved are: Liberia Water and Sewer Corp. (LWSC), Old Lamco Yard, P.O. Box 1079, Monrovia, and Planning Group for Water Supply Systems in Liberia (PWL), GRW, Gesell Shaft for Klaranlagen and Wasserversorgung MTH Gottlieb—Daimler—Str. 12A, West Germany. Fees for each set of tender documents are to be paid to: LWSC Account No. 2975, Bank of Liberia, Monrovia or PWL Account No. 6 570628, Dresdner Bank AG, Mannheim, Germany (depending where documents are ordered). Project is in framework of German capital aid. Submission deadline Aug. 26.

Wood products

• **24910—NIGERIA**—The government is inviting tenders for pressure impregnated roof trusses for Kwara and Benue states. These are the first of 19 sites to be released. Work consists of supply, fabrication and delivery of approximately 11.40 meter span trusses. Quantity required in Kwara State is 231 (11 to 17 trusses per site for 16 sites) and in Benue State is 107 (16 to 23 trusses per site of 7 sites). Applicants should write letters to Project Consultants, Ekwueme Associates, Scann, P.O. Box 3785, Lagosvgn, Nigeria to attention of Corsby, Project Coordinator. Letters should furnish financial standing, registration with works registration board, description of equipment, plants, personnel, and previous jobs. No deadline date given.

• **24910 — NIGERIA** — Nigerian railway corporation inviting tenders for 49,000 cubic feet of building timber. Official tender documents obtainable from Controller of Stores, Nigerian Railway Corp., Ebute Metta, Nigeria for non-returnable deposit of 50 naira (1 naira=$1.60). No deadline date given.

Industrial chemicals

• **28XXXX—ZAMBIA**—2,020 metric tons of sodium isopropyl xanthate, 500 metric tons of sodium ethly xanthate, 122 metric tons of caustic soda, 360 metric tons of ammonium chloride, 180 metric tons of sodium cyanide, 400 metric tons of aluminum wulfate, 9,600 metric tons of sodium hydro sulfide, and 150 metric tons of palm kernel oil. Tender number BD/BM/017/2248. Bid deadline Aug. 27. Prices required both f.o.b. and c. & f. Dar Es Salaam. Delivery schedules and specifications contained in tender documents must be adhered to. Tenderer must furnish additional information on manufacturer, payee, prices, etc. Bids must be submitted to The Chief Buyer, Buying Department, Centralised Services Division, Nchanga Consolidated Copper Mines Ltd., P.O. Box 172, Kitwe, Zambia. Copies of tender documents will be available from Chemicals and Rubber Program, Materials Division, OBRA, BDC, Room 2104, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3174.

Plastic products

• **30797—MALTA**—5,000 "Rikotta" baskets (molds) made of non-toxic thermosetting plastic, blue in color. Dimensions: top diameter—8.0 inches; bottom diameter—5.05 inches; depth—7.25 inches. Capacity about 4kgs. Copy of specifications available from the Manager, Milk Marketing Undertaking, Hamrun, Malta or from U.S. Department of Commerce, BDC, Consumer Goods and Services Division, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2923.

Fabricated structural metal products

• **34400, 35200, 77900—ZAMBIA**—Supply of garden tools and bucket products as follows: 2 gallon bucket builders—31,000; 3 gallon watering cans with ross—42,000; flat tanged hoes—15,000; mattocks—40,000; garden rakes—34,000; sickles—37,000; wheelbarrows with iron wheel—30,000. Bid deadline July 30. Tenders must be submitted to Secretary, Republic of Zambia Central Supply and Tender Board, P.O. Box 1009, Lusaka. Samples required under invitation to bid must be forwarded to Director of Government Stores, P.O. Box 476, Lusaka. Copy of invitation to bid providing instructions to tenderer is available at U.S. Department of Commerce, Consumer Goods and Services Division, 202-377-2923.

Farm machinery

• **35230—BANGLADESH**—General Manager, Purchase Div., Bangladesh Agricultural Development Corp., Krishi Bhaban, 49-51 Dilkisha Commercial Area, Dacca-2 (cable: "Purchase Krishikaj" Dacca), requests bids for 46 different items of laboratory equipment, machinery and miscellaneous materials for a seed certification agency under cereal seed project including grain triers, bag triers, precision divider, seed blower, seed deckage sieves, seed germinators, moisture meter, fluorescent magnifier lights, circline fluorescent bulbs, drying oven, dessicating cabinets, thermometers, petri and analytical dishes, service carts (two wheels), microscope, tripod magnifiers, seales, seed sample pans, purity work board, vitascope, filter papers, bag truck (two wheels), rice miller, seed counter, power tiller, single row seeder (hand), hand cultivator, Gray's Manual of Plants, postal scale, numbering and adding machines, and portable electronic calculators in various specifications and quantities. Purchase will be financed by IDA Credit no. 410-BD. Estimated cost of total imports will be equivalent to $7.5 million. Quotation should be on cost and freight Chittagong basis. Prescribed tender form giving detailed specifications, requirements, terms and conditions available from above address for TK 18 or its dollar equivalent ($1.15), not refundable, per set.

Special industrial machinery

• **35590, 35890—INDONESIA** — Separate contracts for supply of equipment for raw water pumping station for West Kalimantan (Borneo) as follows: Bid deadline Sept. 15—Contract 4—chlorination equipment, hoist, and miscellaneous materials; Contract 5—pumps, motors and misc. equipment; Contract 6—pipes, valves and misc. materials and equipment. Bid deadline Nov. 15 for Proposal II—Supply of equipment and materials for construction of a 13,800 M3/day water production and treatment plant, and water reservoir pumping station. Financing under IBRD Loan No. 1049-IND. Costs of contract document for contract 6 (prop. I) is 25,000 rupiah (approx. $60.24), for Proposal II 30,000 rupiah (approx. $72.29). An addendum to proposal II containing raw water quality analysis, results of soils test at the treatment plant site and reproducible topographic map of the site may be obtained for 10,000 rupiah (approx. $24.10) by firms wishing to make alternative proposals. Construction facilities and installation of equipment will be by an Indonesian Civil Works contractor. Association with such a contractor is preferred for proposal I and mandatory for proposal II. Tenderer is Department of Public Works and Electric Power. Write and submit bids to: Ir. Rachmat Wiradisuria, Director General of Housing, Building, Planning and Urban Development, Directorate of Sanitary Engineering, Jalanpattimura No. 20, Fourth Floor, Kebayorah Bru, Jakarta Selatan, Indonesia.

3559585—GERMANY—Electronic production & test equip., such as component assembly machinery for PCS, component production equip. for resistors, capacitors & ICS. Medium-sized mfr. of assembly lines with integrated soldering system for printed circuit boards, wishes add sales representation of U.S. products to own program. Employs 95. Annual sales: DM 6 million. Has among its customers firms like ITT and Siemens. Has agencies throughout Germany & Europe. No special requirements as to price quotation & terms of payment. Very favorably known to Consulate General. Reply to—Herbert Streckfuss, Firma Herbert Streckfuss KG, Kruppstrasse 10, D-7514 Eggenstein-Leopoldshafen. Telex 7826566; tel 0721/70222.

3559589—FRANCE—Tannery machinery. Limited liability co. capitalized at $11,000, importer & distr. of machinery & equip. for shoe, auto & building industries & for tanneries. Employs 6 traveling salesmen covering France & other Common Market countries. Acts as excl. sales agent for Czechoslovakian, German & U.S. firms in France. Annual sales reportedly $2,500,000. Enjoys excellent credit rating. Recommended as trade partner for U.S. concerns. Excl. distribution requested. Reply to A. Huber, Mgr., Huber & Cie., Zone Industrielle, 67490 Dettwiller, France. Telex 870953, Huber; phone 88-91.41.53.

General industrial machinery

• **35600 — EGYPT** — Pumping units, switchboards, and transformers. Tender number 44/1976; bid deadline Aug. 15. Director General, Purchase and Contract General Division, Alexandria. Buyer is municipal organization in charge of Alexandria water supply. Tender estimated at $2 million.

35640—SOUTH AFRICA—Supply of axial flow suction fans, incorporating continuous centrifugal dust removal of dust from grain drying or handling plant. Private trade opportunity—no fixed deadline. Fan capacity approx. 15,000 cu. ft. per min. (cfm) against vacuum of 3 in. water gauge. All dust down to six microns must be removed. While it is intended to use such units in multiples of six, individual units of capacity higher than 5,000 cfm are also of interest. Dry separation of dust required. Cable and confirm by airmail: N. Besbier, Consultant, Besbier Driers (Pty.) Ltd., P.O. Box 43, Rosslyn, South Africa 0200. Bid request is from agricultural co-op. Cable: Box 43 Rosslyn 0200. Tel.: 011/581721. Besbier is acting as consultant to his brother's firm, which has been awarded contract by Oos Transvaal to erect grain and cereal drying plant. Although primarily interested in equipment described he would welcome contact with suppliers of or with expertise in dust removal. Besbier is also interested in agency/distributor agreements. This will apparently be first dust removal in country. Interested firms should cable P.O. Box address and confirm in writing.

Office, computing, accounting machines

• **35730—ALGERIA** — Secretariat General, S.N.T.R., 27 Rue des Trois Freres Bouadou, Birmandreis, Algiers, has issued a tender for supply of data processing equipment. Bid deadline Aug. 13. All correspondence must be in French. Specifications in metric units. Copy of specifications in French available from above address at US $120.85.

Service industry machinery

• **35890—KENYA**—Supply of two bandscreens for the intake to the raw water pumping station on the Sabaki River (approx. 40 km W. of Malindi) together with provision of services of an engineer to check reaction and commissioning of screens. Tender documents available for $61.27 deposit in Kenyan currency from E. A. Ngunya, Director of Water Development, Ministry of Water Development, P.O. Box 30521, Nairobi. Prospective bidders must satisfy Director of their firm's experience. Deposits will be refunded upon receipt of a valid and complete tender or if bidder is found unqualified. Prices c.i.f. Mombasa. Make ref. to: Contract No. MCS/4—Supply and delivery of handscreens.

• **35890—SINGAPORE**—Supply and erection of sewage treatment plant and related equipment, including switchgear and transformers. No closing date. Write to: Wang Nan Chee, Environmental Engineering Division, Ministry of Environment, Princess House, Alexandra Road, Singapore 3. (Cable: Mineviron Singapore.) Ref.: Ten (Env) 07/LF/G5. Contract to include switchgear, starter board (both 6.6 KV), 400 Volt switchgear, 3.3 KV distribution and starter board and 6.6 to 3.3 KV transformers, and 6.6 KV to 400 volt transformers. Also air and gas compressors. Sewage equipment is delineated below by contract number. This proposed Ulu Pandan Sewage Treatment works is valued at $8 to $12 million. Contract No. Up 111/1—Main civil works; Contract No. Up 111/1A—Screens and grit channel machinery; Contract No. Up 111/1B—Pumping machinery; Contract No. Up 111/iC — Switchgear and cabling; Contract No. Up 111/Id—Sludge pressing plant; Sub-contract No. Up 111/1F to Main Civil Works—Sludge mixing and heating equipment; Sub-contract Up 111/iG to Main Civil Works—Gasholder and gas burner; Sub-contract up 111/iH to Main Civil Works—Scrapers for primary sedimentation tanks; Sub-contract up 111/1J to Main Civil Works—Metering; Contract Up 111/1K-SAS Consolidation equipment; Contract up 111/3—New effluent outfall; Contract up 111/5—Administration building extension.

Electric transmission, distribution equipment

• **36100—SYRIA** — The State is seeking bidders for supply of production line to assemble and manufacture 20/0.4 kv. electrical transformers at rate of 15,000 units per year based on one shift. No stated value on project. Officers should state specifications of equipment, method of erection, quantities, power consumption, required labor and specifications of transformers to be produced. Include catalogs, drawings and price details. Offer in three copies giving both f.o.b. and c.&f. prices, and shortest delivery period; should be valid for four months. Performance bond required ten percent contract price by bank guarantee (L/C presumably acceptable). Delay penalty one Syrian pound per thousand daily. Interested firms should submit offers no later than Sept. 18, to Electric Motors Mfg. Co., P.O. Box 190, Latakia. Tender documents available at same address free of charge.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Household appliances

• **36340—ZAMBIA**—Electric fans, oscillating, 10 to 14-inch sizes, 7,000 units; 2,000 heaters, 1,000 w.; 1,000 fan heaters, 1,000-2,000 w.; 2,000 irons, 250 v.; 1,000 electric kettles, 3-pint size, 230 v. Also 2,000 flashlights, 2 cell; 400,000 flashlight batteries, 1.5 v. Tender No. MF/GS/421. Bid deadline July 30. Submit offers to Secretary, Republic of Zambia, Central Supply and Tender Board, P.O. Box 1009, Lusaka. Specifications available at Consumer Goods & Services Division, U.S. Department of Commerce, Washington, D.C.; 202-377-2923.

Communications equipment

• **36610—KENYA**—Pan-Africa Telecommunications Network, East Africa Section, c/o The Crown Agents (Dept. E2), London, SWIP, 3JD, England, has issued tender no. E2E/EAPT WB 3/32810 for supply of a 960-channel microwave telecommunications network from Moyale, on the Kenya/Ethiopia border to Tunduma, on the Tanzania/Zambia border. Documents will be issued in July, but orders for documents, accompanied by fee of US $100 or 50 pounds sterling, may be submitted now. Copy of specifications available from above address.

• **36610—AUSTRALIA** — Chief Manager, Supply, Telecom Australia, 3rd Floor, 199 William St., Melbourne, Vic., Australia 3000, has issued tender no. C8600 for supply, delivery and installation of an S.P.C. telex switching system for use in Australian public telex network. Bid deadline Oct. 28. Estimated value $7 million. Copy of specifications available from Australian Consulate General, 636 5th Ave., New York.

• **36610—BURMA** — Managing Director, Electric Power Corp., 197-199 Lower Kemmendine Rd., Rangoon, has issued tender no. 5(T)PTP-EPC/ADB 161 Burma/76 for supply and installation of 9 sets two-channel power line carrier telephone equipment and 8 sets one-channel powerline carrier telephone equipment, plus accessories, coupling capacitors, wire traps, filters, switchboards, selector relays, voltage regulators, battery chargers, coaxial cable, testing instruments and frequency counters. Bid deadline Sept. 6. Copy of specifications available from U.S. Embassy, Rangoon, for U.S. $15 per set. When ordering, cite "T-0167."

• **36620 — BURMA** — Deputy Director (Stores), Central Stores Department, Electric Power Corp., Rose Bank Road, Ahlone, Rangoon, has issued tender no.

1(T)EL-EPC(T)/76-77 for supply of two sets of 2 channel VHF/FM radio telephones with power output of 50 to 60 watts, and accessories. Bid deadline is Aug. 4. Copy of specifications available from U.S. Embassy, Rangoon. When requesting copies, cite "T-0169."

• **36620—INDIA**—Director General of Posts and Telegraphs (MMD) Section, Parliament St., New Delhi 110001, has issued tender no. 12-141/76 MMD for supply of two sets of automatic receiving equipment for radio telephone alarm signals. Bid deadline Aug. 27. Copy of specifications available from Assistant Director General (Imports), Room 514 P&T Directorate, New Delhi, upon payment of 20 rupees (US $2.74), in form of crossed Indian postal money order, cashable at Parliament Street P.O.

• **36610—IRELAND** — Engineer-in-Chief, Department of Posts & Telegraphs, Contracts Section (Room 610), Telephone House, Marlboro St., Dublin 1, has issued tender no. C/610/8/24 for supply and installation of automatic telephone equipment at Dooradoyle Telephone Exchange, Limerick, in accord with Specification No. SS 762. Bid deadline Aug. 24. Copy of specifications available from above address.

• **36610—SINGAPORE** — Telecommunications Authority of Singapore, Radio and Transmission Dept., 4th Floor, Plaza Singapura, 68 Orchard Road, Singapore 9, has issued tender no. PT/75/76 (Y) for supply of 65 units of 1000/20 and 500/20 strappable in-band tone ringers, 30 single tone frequency singalling units, and 24 signalling repeaters. Bid deadline Aug. 6. Copy of specifications available from above address upon receipt of bank draft of 500 Singapore dollars (US $203.25) in favor of Telecommunications Authority of Singapore.

Electrical machinery, equipment, supplies

• **36930—PAKISTAN**—Col. (Dr.) Masood Akram, Department of Cardiology, Military Hospital, Rawalpindi Cantt., Pakistan has issued a request for quotations for supply of following equipment for use in coronary intensive care ward; electrotherapeutic and X-ray equipment, photographic equipment, TV monitor and control assemblies, electronic stethoscope, endless loop-channel tape recorder, video tape recorder, air-shield rescue breathing equipment, special intensive care beds. Offers should include cost of training for technicians to operate equipment. Offers should be sent to Col. Akram as soon as possible, since he has been in touch with suppliers in other countries.

Instruments for measurement, analysis and control

3823064 — SWITZERLAND — Electronic pressure transmitters for process control applications (with analog and/or digital output signals). Well-estab. intl. concern with annual sales over $100 million. Specializes in mfr. & rep./selling highly diversified line of advanced process control instrumentation. Capable handling any application engineering, as well as after-sales servicing problems. Sound financial standing. Reply to—M. Laager, Mgr., Bestobell-Mobrey AG, Birchlenstrasse 46, 8600 Duebendorf. Cable: Mobrevag; tel 01/821 55 55; telex 56 769 Mobag CH.

• **38290—MALTA**—Water Works Department, Government of Malta, Beltissebh, Malta, has issued tender No. CFA/ECO/120/1004 for supply of one water level recorder for gauging boreholes and one water level recorder for pumping tests. Copy of specifications available from above address or from Embassy of Malta, 2017 Connecticut Ave., NW., Washington, D.C.

Surgical, medical, dental instruments

• **38420 — ECUADOR** — Lic. Washington Vasconez D., Secretario, Comite de Licitaciones y Concursos de Oferias, Instituto Ecuatoriano de Seguridad Social, Avda. 10 de Agosto y Bogota, Quito, has issued tender no. 2-76-IESS for supply of equipment for intensive care unit of its largest hospital. Bid deadline Aug. 16. Companies must have representatives in Ecuador in order to sign contract with purchaser. Copy of specifications available from address above for US $40, nonrefundable.

Photographic equipment

3861941—INDONESIA—X-ray film. Est. value $50,000/yr. WTDR prep. Limited liability co., estab. 1955. Engaged as importer, agent & distr. of pharmaceuticals, medical instruments, X-ray film & sanitary wares. Small, has 175 employees & 4 salesmen. Sell throughout Indonesia. Payment to be funded by L/C. Requests catalogs, c.i.f. Jakarta price quotations for above equip. Requests responses by cable ASAP. Cable—Sastra Munato, Dir., P. T. Mendjangan, Jalan Hanura Raya 8, Jakarta Barat. Cable PTMENDJANGAN Jakarta; tel. 592138 & 26456.

Scrap & waste materials

5093XXX—GREECE—Scrap and waste materials. Particularly interested in steel scrap. First year imports will be 100,000 tons, second year 150,000 tons and third year 200,000 tons. Newly established steel mill starting operation Oct. 1967. Credit directory lists capital of drs 108 million. Interested in direct import of steel scrap to cover own needs. WTDR on request. Reply to: George Anastassopoulos, Financial Consultant, Metallourgiki Halyps Inc., 40 Anast Zinni, Athens 404. "Tel" 9240281; Telex: 5121 MET.

Antique, secondhand stores

5931XXX — EGYPT — Supply of large quantities of used clothing, first & second grade. Requests price list c.i.f. Alexandria & description of merchandise with catalogs if available. Write to—Abdel Hamid Awad, Sun Nile Corp., 70 A. Helwan St., Monira, Cairo. Cable: Salsabil, Cairo; tel: 21939.

5931XXX—EGYPT — Supply of the following: 100,000 pairs used sportswear pants for men, medium sizes; est. cost $250,000, and 100,000 pairs used jeans, medium sizes, est. cost $500,000. Price quotations requested f.o.b. & c.i.f. Alexandria. Reply to—Sayed El-Nouby, Mgr., ABC Stores, 115 El-Attarine St., Alexandria. Tel: 28422; telex: Palot 4027.

5931XXX—EGYPT—Off-season & out-of-fashion new garments in bulk. Prepared purchase unlimited quantities and request prices c.i.f. Port Said. Write or cable — Abdel Messih Hebeish, Am. Hebeish & Son, 9 El Matba El Ahleia, Boulak, Cairo. Cable: Hebeishco, Cairo; tel: 866703; telex: 2329 IF UN Attn: A. Hebeish.

Greek Ministry Invites Bids On Technical School Needs

Greece's Ministry of National Education & Religion invites firms to bid for the supply of equipment for five Higher Technical Education Centers (HTEC) in the towns of Athens, Thessaloniki, Larissa, Patras and Iraklion (Crete).

Equipment includes: furnaces, incubators, scales, calculators, centrifuges, projection screens, microscopes, tape recorders, photocopying machines, welders, electric sieve shakers, grinder/mixers, forage choppers, grain cleaners, hay conditioners, row crop thinners, forage blowers, portable livestock scales, PH meters, vacuum pumps, color diferring meters, shear presses, water stills, colony counters, mold counting chambers, hot plate oscillatories, water baths, etc. Project partially financed with IBRD funds.

Bid documents must be obtained from Ministry of National Education & Religion, General Directorate of Vocational Education, HTEC Construction & Equipping Service, 15 Metropoleos St., Athens. Documents cost 1,000 Drachmas per set, plus 200 Drachmas for postage (total about $33). Bid deadline is Aug. 20.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Household furniture

2514437—SWITZERLAND — Metal bed frames. Est. annual potential $20,000. Market territory Switzerland & adjacent countries. Newly estab. proprietorship. Schaefer, former sales dir. of important Swiss mfg. of plastic & metal builders' & furniture hardware, has excellent contacts. Labor force 3. Recommended trade contact according to bankers—Solothurnische Kantonalbank, Amthausquai 11, Ch-4600 Olten. Reply to—Mr. Thomas Schaefer, Saelistrasse 100, Ch-4600 Olten. Tel 062/22 43 77.

Concrete, gypsum, plaster products

3272225, 3272241—CANADA — Cement silos—cement gates, aggregate gates. Mfr., distr. of equip. & supplies for concrete div. of construction industry. Sell to companies in Alberta & British Columbia. Considered responsible for regular business commitments. Excl. agency. Reply to—J. Richardson, Pres., Century Pacific Industries Ltd., 220 E. 1st Ave., Vancouver, B.C. V7L 1B3. Tel 604-879-3581.

Abrasive, asbestos, nonmetallic mineral products

3292735—PAKISTAN — Pipe covering (casing). Interested in representing U.S. mfrs. Quote terms & conditions directly for negotiating rep. or agency arrangements for Pakistan on excl. or non-excl. basis. Combine claims ownership of food processing units & substantial textile mfg. facilities in N.W.F.P. Serves as contract suppliers to N.W.F.P. govt. industry dept. Other operations incl. exports of textiles & import of general machinery & sanitary ware. Has wide conections in business & govt. circles. Has good finan-

cial standing. Reply to—Salim Safiullah Khan, Dir., Saif International Combine Ltd., 48/1 Teh Mall, Peshawar Cantt. Cable Saifinco; tel 2631.

Steel mill products

33167XX — TURKEY — 1,000 tons cold rolled steel-pickled st 37-2din 17,100-oiled 2.0 x 960 mm in coils weight 7-10 tons/roll, internal dia. 24 in.; dimension tolerances din 1016 edges are cut. 2,000 tons din 1623 st 12.03 cold rolled steel 1.25 x 1258 mm & 1.25 x 1030 mm (1,000 tons ea.). 1,400 tons cold rolled steel. 0.40 x 1000 x 2000 mm, 0.50 x 1000x2000 m, 0.90 x 1000/2000 mm, 1.00 x 1000 x 2000 mm, 1.20/1000 x 2000 mm, 1.50 x 1000 x 2000 mm, 2.00 x 1000 x 2000 mm (200 tons ea.), dimension tolerances din 1623 thickness plus dimension din 1541—can be in coils. Above specs are purchaser's partial 1976 requirements; delivery requested second half 1976. Quantities can be increased by 25%. Preferable payment terms cash/goods with letter of guarantee by client's bank for Turkish lira deposit. 2% commission requested. Purchaser is largest automobile & appliance mfr. in Turkey. Further steel requirements of approx. 3,800 tons various types cold rolled sheets anticipated for 1976 & subsequently on continuous basis. Give quotes on f.o.b. basis. Reply to—Emil G. Khoury, Mets-Interad (UK) Ltd., Istiklal Caddesi 184/6 Gala Han, Beyoglu, Istanbul. Cable Penlit-Istanbul, tel 443503 & 492334; telex 22725 Bot Tr Attn Mets.

Cutlery, hand tools, general hardware

34231XX — SWEDEN — Double flexible socket wrenches; open end & open end box wrenches. Small well estab. firm, has met business obligations satisfactorily. Financially sound & recommended trade contact. Reply to—Lars Nygren, Firma Cany, Box 117, S-640 31 Mellosa. Tel. 0157/603 20.

3423298 — FRANCE — Hand pruning shears & other tools for wine-growers. Specializes in wholesale & retail trade of materials & equip. used in wine grape producers & wine bottlers & mfrs. Has 5 traveling salesmen calling on wine farmers & wine growers cooperatives in France, Germany & Swit. Founded 1971, but recently reorganized under new management which wishes boost activity. Local banking sources give it very good credit rating. Recommended as trade partner for U.S. concerns. Reply to—Dominique Brendle, Mgr., Vitar, 109 Rue de Strasbourg, 68300 St. Louis, France. Telex Brendco 881508; tel. 89-670059.

Fabricated metal products

34946XX — SWEDEN — Low pressure metal hose, fittings, & assemblies for hydraulic systems. Medium & high pressure hose, fittings, & assemblies: reusable & permanent. Est. value after introduction: $500,000. Large company has share capital skr. 300,000 and approx. annual turnover 24 million. Firm financially sound & meets business obligations promptly. Highly recommended trade contact. Eriksson plans visit Wescon Exhibition in L.A., Sept. 14-17. Hopes to meet with U.S. suppliers of above at that time. Reply ASAP to—Mr. Lennart F. Eriksson, Allhabo, Box 49044, S-100 28 Stockholm 49. Cable Allhabo; telex 19015; tel 08/22 46 00.

Construction, mining, materials handling machinery, equipment

3534031—BELGIUM—Automobile lifts—service station & garage types. Excl. rep. Estab. 1922, imports auto parts & ind. equip. from all over the world. Mfrs. batteries & pit-jacks, exports batteries, submersible pumps & pit-jacks to Europe, Middle East & Africa. Has 14 sales offices in Belgium & has product range of 80,000 different items, with storage area of 129,170 sq. ft. Owned by and is European distr. of automotive & industrial parts of A.P.S. Inc., Houston, Tex. & represents many other U.S. companies. Employs 900. Has excellent business reputation. Reply ASAP to—Jean-Jacques Matthieu de Wynendaele, Mng. Dir., Ets Daniel Doyen S.A., Chaussee de Mons 913, 1070 Brussels. Tel. 523.80.60; telex 226.23.

Special industrial machinery

3559585—KOREA — Machinery and/or equip. to mfr. semiconductors & fabrication of wafers for use in electronic industry, which is deemed essential & must be imported for implementation of recently announced govt. electronic industry dev. plan (1976-81). Plan calls for local production of 31 electronic components or parts incl. wafers, processed wafers, lead frames, gold filament, high density ic's, imitation crystal, crystal oscillators, liquid crystal indicators, special dry cells, small computers, switches/connectors, high-density printed circuit boards, key boards, & color tv braun tube glass. Firm able promote sales approx. $20 million worth of equip. if competent suppliers authorize in time w/catalogs, promotional literature, price quotations, delivery terms, & proposals for agency agreement. Registered offer agent, official status required in Korea to represent foreign suppliers & submit price quotations in own name. Well known to local business community, promoting sales of wide range of scientific & lab instruments. WTDR 2/75. Reply ASAP by cable to—P. H. Ryu, Pres., Asia Science & Co., CPO Box 1250, Seoul 100. Cable Asiascience, Seoul; tel 76-2761/5; telex Shinhan K28205.

Office, computing, acct. machines

357XXXX—UNITED ARAB EMIRATES —Well connected, established local firm has expressed interest in possibility of representing U.S. suppliers of computers and related equipment. U.S. companies interested should directly contact Mohammed Abu'l-Howl or Dr. Juma Abu'l-Howl, Gulf and World Traders, P.O. Box 1155, Dubai, UAE. Telephone: 61614-5, telex: 6060 JADBA DB. For additional information contact Andras F. Behr, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-4441.

Electrical industrial apparatus

3624152—PAKISTAN — Cinema carbon rods, 70 amp. for film projection. Quantity 100,000 pairs. Value approx. $20,000. Medium size importer & sales indent agent of dyestuffs for textile industry, chemicals of all sorts, insecticides & motorcycle parts & accessories. Imports from China, Japan, U.K., W. Germany, & U.S. Wishes purchase for resale to others. Also interested in long-term agency arrangements. Marketing territory all Pakistan. Requests c&f Karachi quotations against L/C. Employs 13 incl. 3 in sales. Reply to—Dilawar Baig, Proprietor, Zahir Bros., 9 Hoorbai Mansion, Admajee Dawood Rd., Karachi. Cable Acidorange Karachi; tel 235429 & 229770. Co. ref. 786/76/540-1B. Dir. sale for resale & agency.

Household appliances

3634378 — GERMANY — Electric coffee grinders, household. Estab. 1915, employs 20, sells through 6 traveling sales agents; sales area Northrhine-Westphalia. Annual sales DM 15 million. Has warehousing facilities. Reply by fastest means to—Heinz Mandelartz, Owner, Heinz Hoffmeister KG, Duesseldorfer Landstr. 57, 4100 Duisburg-Buchholz. Tel 0203-771341-2; tx 0855563.

Communications equipment

3662321—SOUTH AFRICA — Signalling equip. specifically for mines. Subsidiary of Delta Metal Electric (SA), U.K. based firm with diverse local interests, mainly in mfg. & supply of mining equip. Would therefore appear to be well-connected in field. Should suitable product be located, opportunity could prove substantial. Financial ref—Standard Bank, Commissioner St., Johannesburg. Write airmail—R. J. Linnel, Gen. Mgr., Delta Martco (Pty) Ltd., P.O. Box 469, Johannesburg 2000. Tel. (011)24-9124; telex 8-6551SA.

36626XX—SWEDEN — Consumer electronic equip.; other electronic systems. Has sold electronic alarm systems &

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

components since 1973 & is well estab. in field. Financially sound & has met payments satisfactorily. Since firm recently estab., only moderate credit recommended. Reply to—Gunnar Bengtsson, AB Automatvakt Nabam, Kulladalsgatan 24, S-214 64 Malmo. Tel 040/96/32 00.

3662681 — GERMANY — Telephone answering devices. Newly estab. firm (4/76) as wholesaler of specialized office machinery. Subsidiary of Bog, Frankfurt, prominent local business machine retailer, located at same address & enjoys good reputation. Reply to—Dr. Wolfgang Reichelt, Mgr., Orbis Bueromaschinen Vertriebs-GMbH, Heddernheimer Landstr. 144, 6000 Frankfurt 50. Tel 0611-574066.

3662624—SWEDEN — Ultrasonic soldering handtools. Small, estab. 1976, specializes in ultrasonic equip. 5% of company's sales exported to Norway & Denmark. According to local credit sources, considered capable & financially sound. Reply to—Ralf Elgqvist, Mgr., Goteborgs Ultrajud, Box 24013 S-400 22 Goteborg. Tel. 031/20 95 32.

3662697 — GERMANY — Electronically-operated security lock systems. Quote f.o.b. U.S. harbor. Est. 1974, employs 250. Financial ref. Deutsche Bank AG, Commerzbank AG, both located in 562 Velbert. Reply by fastest means to—Herr Hans Girod, Mgr., Jul. Niederdrenk, Postfach, 5620 Velbert-Toenisheide. Tel 02 120-6061; Tx 08516886.

Electrical machinery, equip., supplies

3699267—UNITED KINGDOM—Electric fly killers. Interest has been expressed in obtaining agencies for above for U.K. or greater geographical distribution. Reply to—J. W. Bath, Henry Simon Ltd., Special Products Div., P.O. Box 31, Stockport SK3 ORT. Tel 061-428-3600.

Scrap & waste materials

5093XXX—GREECE—Waste paper. Andreadis, commercial representative & member Athens Association of Commercial Agents, requires waste paper from colored tabulated cards, white news blanks, & hard white savings. Above paper will be used from local industry as raw material for manufacture of self-adhesive tapes. Needs 5,000 tons annually. Andreadis will act as exclusive agent. WTDR on request. Reply to—George Andreadis, Owner-Mgr., George A. Andreadis, 17 Ydras St., Amaroussion Attikis. Tel. 8025086.

5093XXX—ITALY — Waste paper, soft white shavings, grade 28. Est. annual potential sales $350,000. Waste paper; of corrugated cardboard ksk. Est. annual potential sales $1,200,000. Bolzoni, established 1973, employs 17, is local importer of cellulose and waste paper. Sales network employs 5 salesmen and 3 representatives. Share capital is 500 million lire. Bank reports give firm good credit rating. Bolzoni is reportedly well managed. Deserves credit. Reply to: Mauro Bolzoni, Gen. Mgr., Bolzoni S.P.A., Via Vitt. Pisani 8/A, 20124 Milan. Cable: Bolzpaper; telex: 31304; phone 02/638541.

Business services

7392XXX, 7813XXX—AUSTRALIA—Audiovisual material for courses in management communication; i.e., top level management communication. Subject firm seeking diversifications. Reply to: Malcolm Illingworth, Dir., Illingworth Imports Pty. Ltd., 24A Killarney St., Mosman, N.S.W. 2088. Tel. 969 3973. Exclusive agent/distr.

Future Construction Abroad

ALGERIA—Silo construction. Two additional lots to project reported June 7, pg. 35. Construction of 41 different sites of silos totaling 3,000,000 metric tons capacity: lot A) study of placement of silos on sites and lot B) coordination, control and supervision of mechanical, electrical and heavy construction equipment. Deadline Aug. 31. All specs metric. Correspondence and offer in French required. Interested firms should respond direct to: SN SEMPAC, 6 Blvd. Zirout Youcef, Algiers. Cable: DC SEMPAC ALGER, Telex: 52923 and 52907. For additional information, contact Andras F. Behr, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-4441.

ALGERIA—State is seeking bidders for construction of two product-in-hand **woodworking plants.** Capacity of first plant to be 1,000,000 sq. meters per year. French tender documents cost DA 300 (US $72.51) and may be obtained from address below. Deadline Sept. 1. Offer should remain valid 90 days past deadline. All specs metric, correspondence and offer in French required. Submit offers via registered mail to: Societe Nationale des Industries des Lieges et du Bois, 202 Rue Hassiba Ben Bouali, Algiers. Cable: LIEBOIS ALGER, Telex: 52726, Phone: 66-20-14/15. Interested firms also requested to contact Andras F. Behr, address above.

ALGERIA—Bidders are sought for construction of one product-in-hand **industrial complex** comprising various buildings for manufacture of a variety of light and heavy prefabricated articles. Deadline July 30. Tender documents available from Monsieur le Directeur General de la SOTRAM PB (Societe de Travaux et de Prefabrication de la Wilaya de M'Sila), Rue Abdelkader Sahnouni, M'Sila, Algeria. Offers should be sent to same address. Best international references regarding past experience with similar undertakings and quality of manufacturing equipment will be given special consideration. All specs metric, correspondence and offer in French required. Copy of French newspaper announcement available in U.S. Department of Commerce, Rm. 3015, Washington, D.C. 20230. Call Andras F. Behr, 202-377-4441.

ALGERIA—State Construction Materials Corporation is seeking firms interested in construction of three product-in-hand **plants for production of ceramic tiles,** to be located at Ghazaouet and El Attaf (western Algeria), and Bechar in eastern Algeria. Each is to have a yearly capacity of 1,000,000 square meters of tile. Bid deadline Sept. 10. For further information contact: Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Wash., D.C. 20230, 202-377-4441.

ALGERIA—State Feeds Monopoly is seeking firms interested in construction of **eight turnkey incubators for hatching of breeder eggs.** Six are to have a capacity of 400,000 eggs per week and remaining two of 900,000 per week. Tender documents, in French, available for 100 DA ($24.20) from: Direction des Etudes et Realisations, ONAB, 26 Blvd. Zirout Youcef, Algiers; Cable-ONAB ALGER; Telex—52913. Closing date for the bids is Sept. 15. All correspondence to be in French and all specifications metric. Please send copies of correspondence to: Pete Zantal, address above.

EGYPT—General Organization for Industrialization is seeking contractors to bid on design, supply and supervision of installation, startup and takeover testing of **spinning mill** at Menia el Kamh. Project financed by Egyptian Government. Offers should be submitted by Sept. 6 to: General Organization for Industrialization, 6 Khalil Agha St., Garden City, Cairo. Conditions and specifications available from Purchasing Department at above address against payment of 100 pounds sterling, including postal charges. Interested firms also requested to inform Andras F. Behr, address above. OPIC.

GREECE—Contractors interested in construction of approximately **$30 million Patras-Pyrgos-Olympia Road** can apply for prequalification forms from H. Sabetai, Ministry of Public Works, General Directorate of Public Works, Highway Department (C3) Section B, 182 Harilaou Trikoupi St., Athens, submitting 3 copies of articles of incorporation, financial statements, and summaries of construction experience. Completed prequalification forms should be submitted by Aug. 31. Financed by World Bank, project will be tendered in 4 separate contracts: (1) Roitica-Lappa, about 29 kilometers, estimated at 305 million drachmas; (2) Lappa-Pinios River, 29.2 km., estimated at 310 million drachmas; Pinios River-Pyrgos Entrance, 25.8 km., estimated at 357 million drachmas; (4) Pyrgos Exit-Ancient Olympia Road, 14.7 km., estimated at 105 million drachmas. OPIC.

IRAQ—State Company for Animal Production is seeking qualified companies to bid on tender no. 1 for supply and installation of **15 prefabricated cold storage units** (1972 SIC 3585312), 50 tons capacity each. Bidding documents and specifications available from Directorate, State Company for Animal Production, Karradah Sharkia, Irkaitah, P.O. Box 10090 Alwiyah, Baghdad. Offers should be sent to same address no later than July 31. For aditional information contact Andras F. Behr, address above.

SYRIA—Ministry of Agriculture and Agrarian Reform is seeking bidders for **supply and installation of complete maintenance and repair stations for tractors, agricultural machinery and automobiles, including 90 mobile workshops for field service.** SIC code 35231, no stated value for project. Offers should include supply, installation, erection, testing, training, along with detailed specs and prices of proposed items. Deadline Aug. 2. Offers should remain valid for 50 days past deadline. Bid and final bonds are LS 800,000 and five percent of contract price. Further details available against payment of LS 100 (US $25.64) from Mechanical Department, Directorate of Rural Engineering, Ministry of Agriculture and Agrarian Reform, Saadalah Jabri Square, Damascus. Interested firms also requested to inform Andras F. Behr, address above.

GERMANY—West Berlin's largest electrical concern, Siemens AG, is planning to construct **manufacturing facility in Berlin to produce new Siemens electronic "Teletype 1000" teletype machine.** Planned to have facility built and ready

for on-line full operation by late 1977. Exact specifications not yet known. Project director estimates that total cost approx. $19.2 million. Facility will require wide range of items including heating and ventilation systems, flooring and insulation materials. Interested U.S. bidders and suppliers should contact project director preferably by telex as soon as feasible: Ing.-grad. Horst Packmohr, Projektleiter, Siemens AG, Datentechnik, Bereich Berlin, Wernerwerkdamm 15-16, D-1000 Berlin 13. Tel: (030) 386-75-57. Telex: D-18-29-24.

IRAN—Ministry of Social Welfare is seeking firms interested in supplying **complete equipment, on package basis, of 500 and 150-bed hospitals.** Bidders should be able to guarantee local servicing of equipment. Interested firms contact Ministry directly by submitting written declaration of interest by July 20, to contain technical brochures and resume of previous experience. Send information to: Dr. S. Adjudani, Medical Director, Ministry of Social Welfare, 80 North Aban Ave., Tehran. Please send copy of correspondence to Pete Zantal, address above. OPIC.

Visiting Buyers & Officials

NEW ZEALAND—J. P. Shechan, General Manager, J. P. Shechan and Associates, P.O. Box 31-034, Milford, Auckland 9, is visiting Los Angeles, New York, and Providence this month to meet American firms supplying **jewelry components, souvenirs and gift items manufactured by the centrifugal casting process.** He also wants to contact suppliers and manufacturers of **jewellers findings, namely bolt rings, ear clips, ear wires, lump rings, and clasps and chains for necklaces and pendants.** Shechan will attend the Jewelry Trade Fair in New York, July 26-27. He may be contacted directly or through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

HONG KONG—W. H. Choi, Managing Director, Oriental Machinery Ltd., Room 404, Chinese General Chamber of Commerce Bldg., 24 Connaught Rd., Hong Kong, will visit Los Angeles, July 19-22; San Francisco, July 23-24; Chicago, July 25-28; Washington, D.C., July 29-30; and New York July 31-Aug. 3 to locate American suppliers of **stainless steel sheets and strips, alloy steel, steel wire rods and portable electric tools and hand-tools.** This medium-size firm, established in 1974, employs 30, and acts as agent for several lines of foreign machine tools. Choi is well known in Hong Kong business circles. He may be contacted directly or through Bill Corfitzen, address above.

SWITZERLAND — Peter Vogel, ARDO International Marketing, Route d'Oron 2, Case postale, 1010 Lausanne; telex 26288; cable: Ardola, is interested in becoming a distributor for **medical supplies, disposables, etc.** He is not particularly interested in pharmaceuticals or large bulky items such as hospital beds. Vogel will be in the U.S. until July 9. Until then, he may be contacted through Terry Rettig, address above. After that time, he may be contacted directly or through Rettig.

AUSTRALIA—Ronald E. Owen, Director, Anthology Hi-Fi, 118 Willaughby Rd., Crows Nest, N.S.W. 2065, is interested in importing **Hi-Fi equipment, records, and accessories.** Owen will be in San Francisco July 5-16 and Chicago Aug. 2-13. Interested firms should contact Paulette Wolfson, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230, 202-377-3265.

SWEDEN—Bengi Klingehed of Klingbeko AB, Klackvagen 56, S-852 54 Sundsvall, Sweden, will be in the U.S. beginning mid-July seeking agency agreements with U.S. suppliers of **T-shirts and sweatshirts.** Firm is agent and distributor of sports clothes. While in the U.S. Klingehed's mailing address will be, July 15-20: c/o Edwin Gabriebson, 500 West 32nd St., Minneapolis, Minn. 55408. July 23-30: Hotel Waldorf-Astoria, New York, N.Y. For additional information contact Paulette Wolfson, address above.

Taiwan Furniture Makers' Trade Mission Visits U.S.

The China External Trade Development Council and the Taiwan Woodworking Manufacturers' Association are sponsoring a trade mission to the United States June 24-July 29. Thirteen businessmen comprise the group.

Potential U.S. collaborators are sought by some of the mission members to improve production facilities and to establish final finishing and warehousing centers in the United States. Some are interested in joint venture and licensing arrangements with U.S. firms for manufacturing advanced finishing materials such as plastic laminates. Sources of supply of sophisticated furniture making machinery, including lathes, carving machines and moulders also are of interest.

The mission's July itinerary is as follows: July 6, Greensboro/High Point, N.C.; 9, Atlanta; 11, Dallas; 13, Los Angeles; 16, San Francisco; 24, Portland; 26, Vancouver; 28, Los Angeles; 29, Honolulu. The mission schedule calls for visiting furniture shows in New York (June), High Point and Dallas and participating in the furniture show in San Francisco.

Inquiries may be directed to the mission c/o Far East Trade Service, Inc., 350 South Figueroa St., Los Angeles, Calif. 90071; telephone, 213-628-8761. P-76512.

German Firm Seeks Partner

Westdeutsche Waagenfabrik (WESTA), a German manufacturer of household and bathroom scales, is seeking a U.S. partner engaged in manufacture of small electric or non-electric household appliances or household items, who would be interested in selling the German firm's scales in the United States under its trade name, WESTA, or under own brand name. Also manufactures private label scales for other distributors in Germany. In return would sell U.S. partner's products in Germany under its own trade name. Has two modern factories, making bathroom and kitchen scales. Contact Wilfred Hildebrandt, Mgr., Westdeutsche Waagenfabrik, Freudewald & Schmitt, P.O. Box 210760, D-5600 Wuppertal 21-Ronsdorf.

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Minneapolis, 55401, 218 Federal Bldg., 110 S. Fourth St. (612) 725-2133.

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New York, 10007, 37th Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

Newark, N.J., 07102, Gateway Bldg. (4th floor) Market St. & Penn Plaza (201) 645-6214.

Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

Philadelphia, 19106, 9448 Federal Bldg., 600 Arch St. (215) 597-2850.

Phoenix, Ariz., 85004, 508 Greater Arizona Savings Bldg., 112 N. Central Ave. (602) 261-3285.

Pittsburgh, 15222, 2002 Federal Bldg., 1000 Liberty Ave. (412) 644-2850.

Portland, Ore., 97204, Room 618, 1220 S.W. Third Ave. (503) 221-3001.

Reno, Nev., 89502, 2028 Federal Bldg. 300 Booth St. (702) 784-5203.

Richmond, Va., 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

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Newsmemo

American farmers are using pesticides more than ever. Reasons: more acreage under cultivation, repeat plantings rather than rotation, closer row-spacing requiring overall application, and lack of deep plowing, which allows survival of more insects and diseases in field stubble. Another factor is the removal from the market of highly effective pesticides, necessitating greater use of less effective substitutes. Pesticides represent about 2 percent of farm production costs—cheap crop insurance in the view of most farmers. U.S. crops would probably be reduced by 10-15 percent without use of chemical pesticides.

Phasedown of lead in gasoline additives will continue. The Supreme Court has turned down a challenge to the Environmental Protection Agency to regulate gasoline additives. An industry spokesman has predicted that the lead phasedown will add 5-6 percent to the U.S. annual consumption of crude oil and bring higher prices at the gas pump. About 11 percent of domestically-refined gasoline in 1975 was unleaded; in 1976, it is estimated, the proportion will rise to 20 percent.

First significant legislative curb in 30 years on the authority of the Food and Drug Administration. It is the new law, effective Oct. 22, that bars FDA from setting maximum limits on the amount of vitamins, minerals, or other ingredients combined in dietary supplements and sold in capsule, tablet, or liquid form. Since World War II vitamin/mineral supplements have increasingly become a part of the American diet. For over ten years the pharmaceutical industry has been trying to reduce FDA authority in this field. Growth in vitamin supplement sales, averaging 10 percent annually, is not expected to be affected greatly by the new law.

If FDA's authority in the vitamin field has been limited, its role in another—medical devices—has widened. A recently enacted Federal law gives FDA the power to ban dangerous, as well as faulty and ineffective, medical devices. Some products in this $4 billion annual market will require extensive testing before getting FDA approval. Patient safety will be improved, but costs can be expected to go up and there may be delays in marketing new devices.

Strip mining regulations for federal coal reserves have been cut. The Interior Department rules require mine operators to minimize pollution and restore public lands to approximate original contour and vegetation as they work them. By 1985 two-thirds of U.S. coal production will come from surface mines and about a quarter of the 1985 total will come from federal properties. Interior plans to resume leasing of federal coal lands within nine months, thus ending a moratorium begun in 1971.

Estimates of world production of solid-state watches in 1976 keep going up. An earlier figure of 15 million units has been revised to 18 million, with an approximate retail value of $630 million. The revision takes note of Texas Instruments' marketing plans for a watch selling for under $20. About half of all watches now sold in the U.S. retail at under $20. Four other firms have recently announced increases in production, primarily in Far Eastern countries. More than half of the world production of solid-state watches is expected to be marketed in the U.S.

Managers of multinational firms are more likely than others to view themselves as global citizens. Bank of America President A. W. Clausen regards them as builders of a peaceful world, saying: "The difference between the multinational executive and the domestic corporate manager is not his range of responsibility, but his world view. . . . This will go far to reduce tension and induce harmony in the world's political institutions. And that is no small gift."

Regional initiatives are growing in Latin America. Further evidence of this is the Second Conference on Export Promotion in Latin America being held July 25-30 in Caracas. The organizers, the Banco Central de Venezuela and First National Bank of Boston, are being joined by no less than a dozen regional associations, centers, institutes and banks.

Mexico will send its President to open a fair of Mexican products in San Antonio Sept. 7. MexFair 76, fourth in an annual series, will present more than 1,500 product lines by 950 Mexican manufacturers. The Mexican Institute for Foreign Trade and the City of San Antonio are sponsors.

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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President's Export Council meets—Updated Market Share Reports available—Official Trade Briefs—Exhibitions in Iran, New Zealand—Economic trends in Australia, Philippines, Ghana, Nicaragua, Madagascar, Belize—Calendar for World Traders—Licensing, investment, sales opportunities.

COVER: How high flies the corporate flag these days on the issue of corporate responsibility was the recent concern of Secretary Richardson's new Advisory Council. Disparate views of business executives, labor leaders, educators, and consumers who make up the Council membership indicated clearly that more definition of the problem is needed in the months and years ahead.

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ECONOMIC HIGHLIGHTS

Decline In Unemployment Tempered By Rapid Increase In Labor Force

This column was written by John W. Kendrick, Chief Economist of the Department of Commerce, with Staff Economist Theodore S. Torda.

John W. Kendrick

The rebound in economic activity since early 1975 has brought about substantial improvement in labor market conditions. Earlier this year, total civilian employment had fully recovered from the loss sustained during the past recession, and in the second quarter rose to a new high. However, employment in some major industries has not yet returned to previous cyclical highs. Growth in the labor force has been unusually rapid during this recovery; and the unemployment rate remains well above the prerecession low.

Two broad measures are examined below to provide a perspective on employment developments during the recession and recovery. One is based on a monthly household survey, which provides demographic detail and the most comprehensive estimate of total employment and unemployment. The other is based on a monthly survey of nonagricultural employers, which gives details of payroll employment by sector and industry.

As indicated in the first chart, growth in the labor force during the past recession was in line with historical experience. However, the decline in civilian employment beginning in late 1974 was deeper than usual. As a result, the unemployment rate, which had been drifting up moderately, rose very sharply during the last two quarters of the recession. The unemployment rate continued to rise in the first quarter of this recovery, to an average of 8.7 percent, the highest in the postwar period.

As economic recovery gained momentum in the second half of 1975, the unemployment rate remained on a high plateau. However, a marked reduction in unemployment occurred during the early months of 1976. Still, the net decline in the unemployment rate during the recovery has been less than usual—despite the above-average gain in jobs.

The explanation, in large part, is that the rate of growth in the civilian labor force was large compared with similar phases of previous postwar recoveries. This stems from an accelerated increase in the labor force participation rate by adult women (particularly young wives) and a moderate step-up in the growth rate of the adult male labor force. Growth in the teenage labor force also has picked up during this recovery, but the rate of increase has been considerably slower than during the prior decade.

Rapid growth in the labor force participation rate by wives may have been induced by the combination of severe recession and inflation, which caused a significant erosion in real income. However, longer term trends appear to be more important than cyclical factors. A declining fertility rate, the consequent sharp reduction in the proportion of married women with young children, and changing socio-economic conditions have made it possible for wives to enter the job market at an accelerated rate.

One additional factor that tempered the reduction in unemployment during this recovery has been an above-average cyclical rebound in productivity, as measured by output per hour of all persons in the private economy. But the strong recovery in productivity has been an important factor in mitigating inflationary pressures and restoring profit margins.

Chart 2, derived from the survey of nonagricultural establishments, provides a perspective on recent trends in payroll employment. As is typically the case, the goods-producing industries bore the brunt of the decline in employment during the recession, and they continued to reduce employment in the early stage of the recovery. The table shows that job losses were heaviest in durable goods manufacturing and construction. Employment in mining continued to rise throughout the recession, especially in energy resources such as coal and petroleum.

As of June 1976, nonagricultural payroll employment in the goods-producing industries had recovered less than one-third of the 2.9 million job loss incurred during the recession. Manufacturing employment has been recovering since last August, but currently is still 7 percent below its previous cyclical high reached in December 1973. Employment in construction hit its low in March 1976, and continues to be severely depressed.

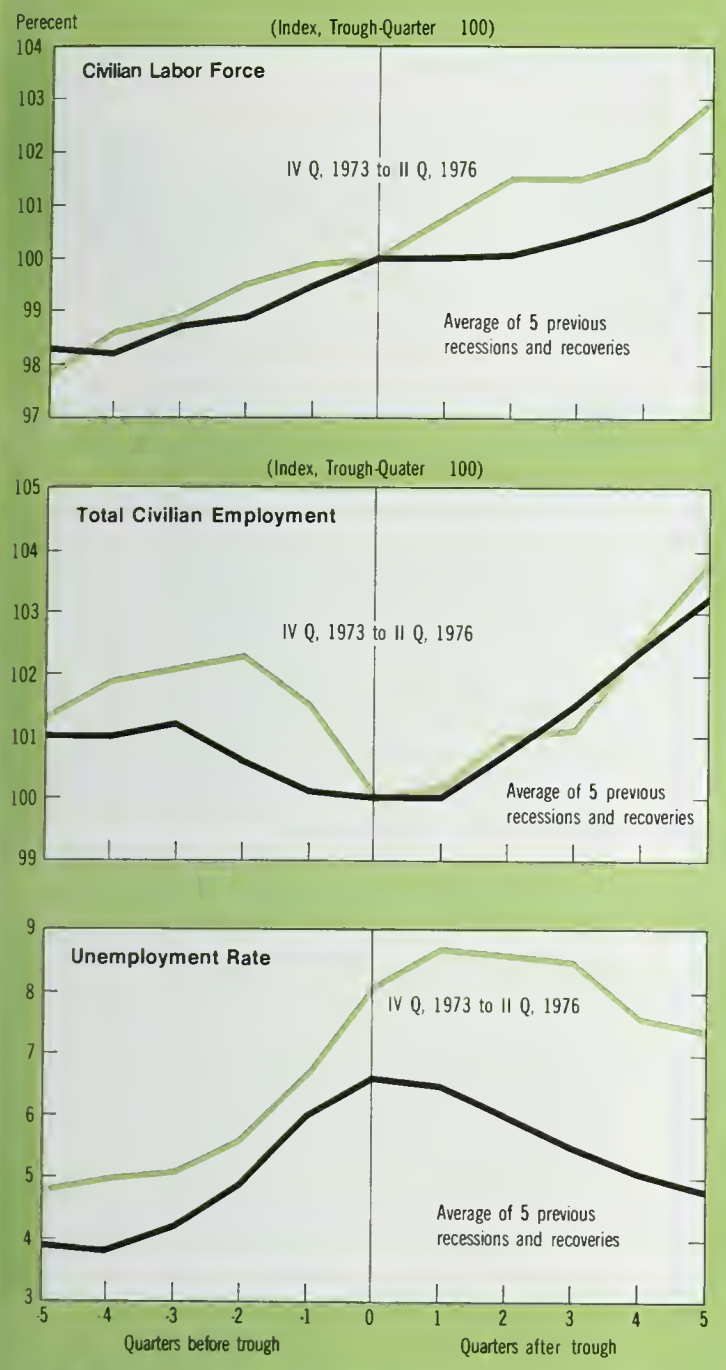
In the broadly defined service-producing industries (see table), the net decline in employment during the recession was moderate, of short duration, and was quickly recouped. A buffering effect occurred as employment in the narrowly defined services industry and in the government sector rose during the recession. It should be noted, however, that employment growth in government has moderated from the prerecession rate, reflecting a net reduction in the federal sector since early 1975 and slower growth in the state and local government sector. Employment in the transportation and public utilities industries underwent a relatively sharp decline during the recession and there has been virtually no recovery to date. The decline was concentrated in transportation, which is technically a service, but is closely tied to the production of goods.

On balance, total nonagricultural payroll employment returned to its prerecession peak in April 1976, and since then has moved to new highs. Diffusion indexes show how pervasive the employment gains have been among various industries. When nonagricultural payroll employment began to recover in July 1975, the one-month span diffusion index rose above the 50 percent level and held in the range of 55 to 80 percent until June 1976, when it dropped to 40 percent. Gains in payroll employment during May and June were limited, partly because of labor-management disputes. The six-month span diffusion index, which is a better indicator of underlying employment trends, recently has been holding around 80 percent—close to the prerecession level of early 1973.

In summary, employment—as measured by either the household survey or the establishment survey—was at an all-time high in the second quarter of 1976. Gains since year-end have been particularly large and widespread, although in a few industries the employment recovery has not yet begun in earnest. Growth in the labor force during the recovery to date has been above average and is the major reason why the decline in unemployment has been somewhat less than otherwise would have occurred.

The Employment Situation in Recession and Recovery

1



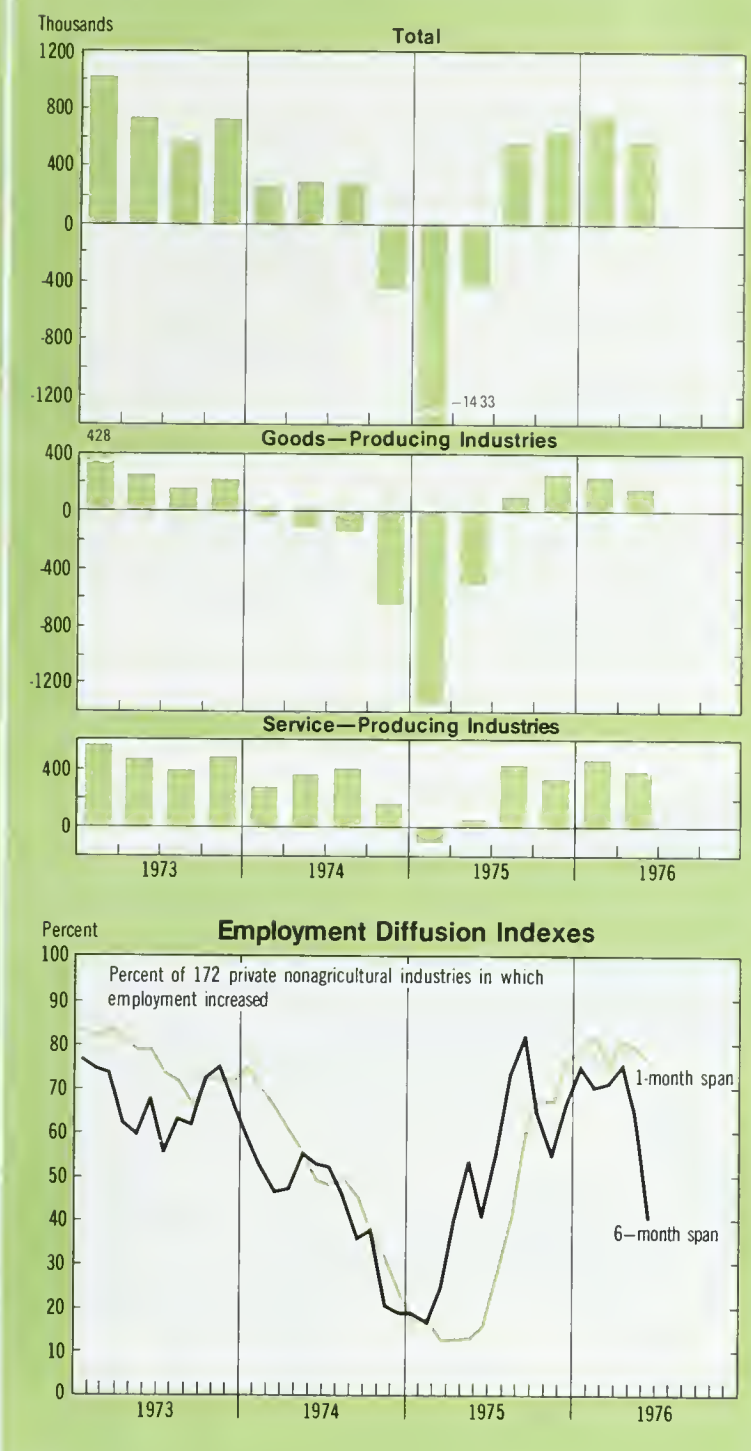
Averages computed on basis of business cycle trough quarters occurring in: IV 1949, II 1954, II 1958, I 1961, and IV 1970.

The tentative trough quarter for the most recent business cycle is I 1975.

Prepared in the Office of the Chief Economist from Department of Labor data.

Changes in Nonagricultural Payroll Employment

2



Source: U.S. Department of Labor

Nonagricultural Payroll Employment in Recession and Recovery	Change during 1973-75 recession	Change from lowest level or business cycle trough	June 1976 Percent of previous peak
TOTAL	— 3.2%	3.5%	100.2%
GOODS-PRODUCING INDUSTRIES	—11.5	3.8	91.9
MANUFACTURING	—11.2	4.5	92.8
DURABLE GOODS	—13.5	5.5	91.2
NONDURABLE GOODS	— 9.4	4.9	95.0
CONTRACT CONSTRUCTION	—18.2	0.8	82.4
MINING	9.6	7.1	117.5
SERVICE-PRODUCING INDUSTRIES	— 0.3	3.5	103.1
TRANSPORTATION AND PUBLIC UTILITIES	— 5.4	0.9	95.5
WHOLESALE AND RETAIL TRADE	— 1.8	3.6	101.8
FINANCE, INSURANCE, AND REAL ESTATE	— 0.6	2.3	101.6
SERVICES	4.3	5.2	109.7
FEDERAL GOVERNMENT	2.3	—0.6	101.7
STATE AND LOCAL GOVERNMENT	5.8	4.0	110.0

anges in series declining during recession computed between specific cycle peaks d troughs of major industry groups. anges in series advancing during recession are computed between general business cycle peak and trough, tentatively dated November 1973 and March 1975. For those advancing series, the last column shows the most recent employment data, June 1976, as a percent of the business cycle peak, November 1973.

rce: U.S. Department of Labor

Enlightened Social Policy

Good Business, Council Agrees; Opinion Varies On Methods

Must American business assign itself a stronger role in helping to solve the problems of today's complex society?

This basic question was the central issue in a recent lengthy discussion of "Corporate Social Responsibility at Home" by Secretary of Commerce Elliot L. Richardson's Advisory Council, a group composed of leaders of industry, academic life, labor and consumer groups.

As might be expected from so diverse a group, they provided many conflicting answers to the questions posed. But there was near unanimity in recognizing that in the long term, enlightened social policy is good business.

It was the first meeting of the group, which Secretary Richardson said would advise him periodically "on the broad policy objectives and goals of the Commerce Department as they affect and influence the basic and underlying issues affecting American society."

Richardson said he had intentionally chosen a diverse group to assure that divergent interests would be heard. He recalled that the framers of the Constitution foresaw that the presence of factional interests in society insured the continued existence of democratic government since, as James Madison observed, a coalition of a majority would be unlikely on any other principles "than those of justice and the general good."

Richardson said a corporation has multiple responsibilities to its shareholders, bondholders, employees, customers, and the community. "These responsibilities are not easy to define," he observed. "But it is obvious that they differ. At times they may even conflict. Fulfilling them requires compromise and trade-offs.

"The corporate obligation to the stockholder—to maximize profits—competes with the equally important obligation to the employee to maintain a safe working environment, to the customer to manufacture a superior product, or to the community to preserve air, water, and soil quality.

"Such considerations are important not only because of growing citizen interest in these issues, but for another more self-serving reason: the proper discharge of corporate responsibilities can reduce the justification for government regulation on behalf of the public, and thereby preserve and enlarge the rights of the corporation."

Discussion of the basic theme of the meeting reflected the varied views of the participants. Management spokesmen pointed to the many actions taken by corporations now to help solve social problems, and stressed the need for a clear definition of the framework in which corporations are supposed to operate. Spokesmen for labor and other

cups insisted that the primary aim of corpora-
ons was to maximize profits, and that corpora-
ons had responded to social problems only when
mpelled to do so by law. Some of the points made
the give-and-take of comments included the
llowing:

Richardson commented that some actions taken
alleviate social problems may aggravate other
cial problems. He referred to a Commerce De-
rtment report estimating that environmental
quirements as applied to the iron and steel in-
istry would result in a 10 percent increase in the
nount of energy used by the industry. In another
ea, higher occupational health and safety re-
irements, he added, may result in higher costs
the consumer.

A corporation executive, he said, could reason-
ly say that he would comply with what was
quired provided the public, acting through gov-
nment, would make up its mind as to what it
anted for the common good.

The point was made by several participants that
balance is needed among conflicting demands.
orporations, it was observed, cannot be expected
act unilaterally in dealing with social problems,
rticularly in highly competitive situations, so
at equitable rules should be established for all.

If a corporate action taken to comply with a
rtain requirement forced the closing of a plant,
was remarked, jobs would be lost, local buying
wer would diminish, and other businesses and
e affected community would suffer.

"The toughest decision that corporate manag-
ent has to make," commented Rodney C. Gott,
airman of the Board, AMF, Inc., White Plains,
Y. "is to close a plant. When that happens, the
y who gets hurt is the little guy who has noth-
g to put in his lunch basket.

"I am not afraid of profits. They do the most
portant thing of all. They provide jobs."

Gott deplored the tendency in some quarters to
cture corporate leaders as "the bad guys," as if
ey were being tried in a court of law. He sug-
sted that business should be taken out of "the
tegory of the whipping boy."

A built-in safeguard exists, he said, so far as
rporate responsibility is concerned. The corpora-
on that produces shoddy products, poisons the
mosphere, or operates a sweat shop, he added,
ill not survive.

Dr. Barry Commoner, Professor of Biology at
ashington University in St. Louis, said that the
erriding consideration with corporations is max-
izing profits. This is not an adequate safeguard
ainst the creation of undesirable side effects,
ch as bad working conditions, lack of jobs, and
unhealthful environment, he added.

"It will not do any good," he commented, "to insist that things are not all so bad."

Dr. Simon Ramo, Vice Chairman of the Board, TRW, Inc., Redondo Beach, Calif., said a corporation's obligation to its stockholders "in part is to maximize profits," but that this does not necessarily compete with its other responsibilities, such as the need to provide a safe working environment and the like.

Irving Bluestone, a vice president of the United Auto Workers, said he would welcome a change in the traditional concept of corporate responsibility, but that he still believed the pressure on corporation executives to improve their profit margins "will fuzz up the larger picture."

He added that laws had been necessary to force industry to take steps to reduce pollution, to provide a healthful climate and safe working conditions for employees, to introduce emission controls in autos, to eliminate discriminatory practices in hiring, and to introduce other affirmative action programs.

"Industry has to be cautioned constantly by law to advertise honestly," he said.

"In all this, voluntarism didn't work because the immediate pressures were to get the lowest unit cost."

At this point, Richardson commented that the lowest unit cost increased productivity and provided the greatest opportunity on the part of industry to increase wages.

One industry spokesman recalled that a union official was happy about the recent increase in profits by General Motors, since it would enhance the opportunity for more successful collective bargaining.

The Rev. Jesse L. Jackson, Executive Director of Chicago's Operation PUSH, said that, amid all the talk about social good, attention probably should be directed to the common good. One result of the present trend of events, he said, has been the polarization that has occurred among various groups, such as business, labor, and the community.

The Rev. Leon H. Sullivan, Chairman of the Board of Opportunities for Industrialization Centers, Philadelphia, said it should be made costly for corporations to discriminate in hiring practices.

Unless there is more voluntary action on the part of corporations to meet social responsibilities, he said, government will have to intervene to a greater degree. The final outcome, he said, could be socialism.

One corporation spokesman said that if the primary purpose of business was to maximize profits, it was doing a poor job, because the rate of profits had been on the decline for the last 25 years.

Another participant in the discussion suggested

. . . higher occupational safety and health requirements . . . may result in higher costs to the consumer.

Some industry spokesmen felt that business should speak out more affirmatively, that business executives have been too timid . . .

that incentives which would increase corporate profits should be provided to stimulate greater response to pressing national objectives.

W. Michael Blumenthal, Chairman and President of The Bendix Corporation, said the basic problem results from a highly imprecise definition of what corporation executives should do.

He added that such questions as what are reasonable needs were matters of individual judgment, and that in this context decisions had to be made.

Blumenthal pointed out that corporation executives were faced with changing conditions which were different from what they were a year ago. He suggested that there were only two ways out of the situation. One is for government to define the framework in which corporations must operate responsibly. The other, he said, is to develop in the minds of corporation executives a better understanding of what is required at this time. This is a long educational process which, he suggested, neither government nor unions could accomplish.

"There should be," he said, "a better defined legal environment and better training of executives to understand changed conditions in which they have different constituencies to which they must respond."

Blumenthal commented that many corporation executives tend to take a shorter view of conditions than the present situation warrants.

Dr. Philip Areeda, Professor of Law at Harvard University, said it was clearly a mistake to rely on corporate responsibility to accomplish more than it is capable of doing. Corporate responsibility, he said, is no substitute for legislation and regulation.

"What is the responsibility of the management and directors of an enterprise?" asked Sol M. Linowitz of Coudert Bros., a Washington, D.C., law firm. "It is to assure the soundness and the success of an enterprise.

"I don't know of any good manager who talks about that in terms of maximizing profits for this year or next.

"It seems to me that what a good manager has to do is to look at the enterprise and decide what course of action would be best designed to assure its success in the future.

"Any expenditure which has a legitimate business purpose is justifiable, and that goes far beyond maximizing profits. For example: You support education because you want to get a certain kind of employee out of the schools and universities. You support a symphony orchestra because you want to create an environment for your employees so they will stay with you and not go elsewhere. You support affirmative action program because you want to keep your customers and no antagonize society.

"In short many of the things we talk about a apart from business are in my judgment an inte gral part of sound business management.

"This has nothing to do with what a law re quires, because if a law requires it you have n opportunity for initiative or choice. If you hav a choice you tend to opt for what will serve yo best and further your own organization."

Dr. Commoner questioned whether the basi purpose of supporting a symphony orchestra woul not be maximizing profits. This led to discussio of the difference between long-term and short-term objectives which in many ways highlighted th basic differences in the Council members' attitudes

R. Hal Dean, Chairman of the Board and Chie Executive Officer of Ralston Purina Company, St Louis, stressed the importance of better communication. Some industry spokesmen felt that business should speak out more affirmatively, that business executives have been too timid about speaking out and too late in doing so, and that when they di speak they were too much inclined to dwell on only one aspect of a matter.

Ms. Carol Tucker Foreman, Executive Directo of the Consumer Federation of America, voiced appreciation of the views expressed by industry leaders and asked where they were when her group was trying to get legislation passed by Congress. She deplored industry opposition to legislation in which she was interested.

An industry spokesman said a major effort of business is to introduce moderation into legislation dealing with major social problems that face this nation.

Several speakers said that the main bottleneck in the situation is lack of articulation of what is desired to try to solve problems. Society will have to influence the decisions, it was pointed out, since business firms are in no position to decide what is best for the community. The observation was made that government has been less than imaginative in establishing the framework in which corporations should operate.

Other conferees maintained that the main reason the rate of profit has been falling in the United States is that the productivity of capital has been falling, so that more and more capital is required to produce a given amount of value added.

Secretary Richardson, in commenting on the observations made by the Council, said he would review the record of the deliberations with an eye toward formulation of new departmental policy if needed. ☆

VENEZUELA

a priority market

A concerted effort to turn the attention of U.S. firms to the burgeoning Venezuelan market being launched by Commerce's Bureau of International Commerce (BIC). The first step is publication of a comprehensive new 154-page market rvey. This will be followed by a series of business seminars throughout the fall in various U.S. ies and a battery of 1977-78 trade fairs, trade issions, and catalog shows in Venezuela.

Commerce analysts say that the combination of e phenomenal increase in foreign exchange earngs from petroleum sales and the installation of a w, development-oriented government has given e Venezuelan economy a push that is making it e of the world's most dynamic markets. Largely cause of the gold-rush climate engendered by the creased oil revenues, 1974 aggregate spending mped by 17 percent in real terms; and 1975 U.S. ports reached $2.2 million, a 27 percent increase er 1974. For the first five months of this year, S. exports increased ten percent, despite a slight cline to Latin America as a whole. The market ght have been even larger had the government t resisted spending its new-found wealth too ickly.

"The comprehensive promotion plan for Venezela is the most exciting new market penetration ort undertaken by Commerce in several years," ys Richard Garnitz, Director of BIC's Office International Marketing. "The combinaon of market research, the mix of trade events, d the seminars will provide several avenues rough which U.S. firms can take advantage of e growing sales opportunities generated by Venecla's petrodollar spending."

For most of the "Marketing in Venezuela" semirs, speakers will include the Commerce Departent's country specialist, an Export-Import Bank n officer, a banker and a local businessman. The S. Department of Commerce and local cosponsorg organizations in the areas in which the seminars e to be held will promote the meetings. U.S. ms, exporters, investors, bankers and individuals erested in the market are invited to participate. date, sessions are scheduled for St. Louis, Sept.

TWO-FIFTHS OF GNP— In 1974, petroleum accounted for 39 percent of Venezuela's gross national product. Photo shows oil wells, Lake Maracaibo.

While the Venezuelans are long on petrodollars, they are short on the equipment and technology needed . . .

15; New Orleans, Sept. 21; Chicago, Sept. 22; Dayton, Ohio, Sept. 28; and San Francisco, Oct. 21 (tentative). Commerce District Offices across the country can provide additional information.

An exhibition of food processing and packaging equipment, in which 40 U.S. firms are planning to participate, will be held Sept. 14-18 in Caracas. Other such events will be announced in *Commerce America* as they are scheduled.

The market survey, conducted in Venezuela by research officers of the U.S. Departments of Commerce and State, points out that Venezuela is taking giant steps toward becoming a modern industrial economy in the shortest possible time. The expenditure of billions of petrodollars on planned projects and improvements will affect virtually every aspect of Venezuela's national life.

Under the government's recently set goals and planned massive investments, industry and agriculture share top priority, according to the study. The agricultural goal requires substantial infusions of capital for construction of irrigation works, transportation, storage facilities, and the purchase of farm machinery and equipment. For industrial development, the main emphasis is on basic manufacturing and infrastructure for sustained growth. Steel output will be quintupled. Aluminum output will more than double. Fertilizer and basic chemical production will be stimulated. The restructuring of the automobile industry will raise the percentage of locally manufactured parts from 35 percent to 90 percent. Transportation and communication facilities will be improved to reduce current bottlenecks. Heavy investment is planned in social infrastructure—electrification, medical care facilities, and housing.

Venezuela's 1976-80 National Development Plan calls for investments totaling $52 billion, with the government shouldering a 53 percent share ($27.6 billion). Most of the public financing will con from petroleum revenues and taxes; borrowing (the domestic and international money markets al is expected.

Many of the development goals identified in tl Plan will impact on the 13 sectors of the econom covered in the survey: agro-industry, food proces ing and packaging, petroleum, chemicals/petr chemicals, mining and basic metals, automotiv transportation, communications, electric energ construction, financial institutions, health care ar tourism. The government's plans for many of tl sectors are incorporated in the individual chapter

To American companies seeking expansion markets abroad, these plans and projects represe real sales opportunities. While the Venezuelans a long on petrodollars, they are short on the equi ment and technology needed to bring these pla to fruition. Since little capital equipment is pre ently produced in Venezuela, most of the necessa hardware will have to be imported. Foreign tec nology and management expertise will also be r quired to solve the complex problems of rapi economic development.

Venezuela has become a priority market f virtually every major trading nation in the worl U.S. firms currently occupy the favored positio as suppliers to the market. But the French, Bri ish, Germans, Japanese and Canadians are makin a major export promotion effort. Additionall countries not usually aggressive in this market—f example, Mexico, Brazil, Argentina, Netherland Czechoslovakia, and Italy—are increasing thei promotional efforts.

Copies of *Venezuela: A Survey of U.S. Busines Opportunities* may be purchased at $2.25 each fro the Superintendent of Documents, U.S. Govern ment Printing Office, Washington, D.C. 20402.

FROM PETRODOLLARS TO DEVELOPMENT—Under Venezuela's 1976-80 National Plan, massive investment will occur in the industrial sector. Aluminum output is growing and is expected to more tha double. Photo shows worker at Alcasa plant in Ciuda Guayana preparing aluminum ingots for shipping

Energy Digest

SHOWER POWER . . . A flow control device for shower heads to save energy and water has been developed by researchers at Virginia Polytechnic Institute (VPI). Made of acrylic plastic, it comes in three forms easily inserted in shower heads. The average shower uses 8 or more gallons of water per minute. This device cuts the flow to 3 gallons per minute. Average families could save up to $24 per year in energy bills, the developer estimated. A worldwide campaign to market this device through the Lions Club is being planned—proceeds would benefit both VPI academic programs and Lion's charitable work. For more technical information, contact H. L. Routt, Noland Co., 2700 Warwick Blvd., Newport News, Va. 23607. Similar devices are available from hardware and plumbing supply stores.

ENERGY USE DROPS SLIGHTLY . . . Total U.S. energy consumption in 1975 was down about 2.5 percent from 1974, and 4.8 percent from 1973, according to a recent Bureau of Mines report. The major reasons were the economic recession plus higher fuel prices and a comparatively mild winter. The industrial sector led in reduced energy use, down 6 percent from 1974. Next were households and consumers, down about 2 percent each. Transportation and electrical power generation, however, increased total energy use by about .5 percent from 1974 to 1975. Largest energy reductions were in the use of oil and natural gas, but increased coal and nuclear power use took up some of the slack.

SUPER SAVER . . . The Russellville, Alabama, Electric Department has built a demonstration "Super Saver Electric Home" featuring annual heating costs of $100 per year, compared with average costs in the area of $420 per year. It features a heat pump for heating and cooling; double the standard insulation in walls, under floors and over ceilings; double-glazed windows; and reduced window space. For details, contact Robert Stephenson, Russellville Electric Dept., P.O. Box 1148, Russellville, Ala. 35653.

SOLAR FOR BUSINESS BUILDINGS . . . Owners of 11 commercial buildings have been invited to submit proposals to the Energy Research and Development Administration for cost-sharing contracts to cover installation of demonstration solar systems in their buildings. The contracts, if awarded, would provide for competitive selection and installation of solar systems for hot water, space heat, air conditioning, or a combination of these. Basic designs for each of the solar systems were developed by InterTechnology Corp. and by General Electric under contracts that called for competitive selection of locations and buildings that would best advance the national solar demonstration program. Each design can accommodate any of several types of solar collectors that are now on the market, thus providing maximum opportunity for competitive bidding.

TAKE IT EASY . . . Federal Energy Administrator Frank G. Zarb says that Americans should find enough gasoline to meet summer driving needs, but urged motorists to "go easy on the gas pedal" during coming peak-demand months. "Demand for the first quarter of this year and for the month of April was higher than we expected," Zarb said. "And, of course, driving will be heavier during this Bicentennial summer. Although we are not forecasting any gasoline demand that cannot be met, we do urge drivers to obey the speed limit and be frugal in their driving habits." Zarb also said that gasoline prices can be expected to rise about two cents during the summer, which is the traditional seasonal increase.

LISTENING TO EDUCATORS . . . FEA's Office of Conservation and Environment recently held a series of one-day regional seminars to learn how educators felt about teaching the subject of energy and to identify the gaps that existed in direction, materials, or programs. Conducted by Educational Testing Service (ETS), Princeton, N.J., each seminar offered members of the education community, environmental groups, and energy companies a chance to be heard. ETS will provide its report on the results of the meetings in August.

PLASTICS INDUSTRY SURVEY . . . A comprehensive study of energy usage and energy conservation methods in the plastics processing industry is being conducted by The Society of the Plastics Industry. A fuel and energy survey has been mailed to the processing members of the industry association. The survey results will be analyzed by SPI to identify areas for additional energy conservation and will provide a baseline from which future improvements in energy usage can be evaluated. SPI ultimately plans to supply results, in the form of a manual, as a further service to its processor members, so that they may implement the suggested energy-saving procedures. Plastics processors who are not members of SPI are welcome to participate, and may request survey forms from John Lawrence at the association's headquarters at 355 Lexington Ave., New York, N.Y. 10017.

HIGHER PRODUCTIVITY HINGES ON PRECISE MEASUREMENT TOOLS

PRODUCTIVITY TOOL—*Training has been shown to increase productivity, by improving employee skill and motivation. This instructor is describing a steel plate layout for shipyard workers at the Airco Technical Institute in Baltimore.*

Almost everybody agrees that productivity is a good thing for the American economy. Here is what the National Center for Productivity and Quality of Working Life sees as the most crucial factors affecting productivity:

- human resources—the level of health and education, skills, ingenuity and dedication of all people involved in the production of goods and services;
- technology and capital investment; and
- government regulation.

In an effort to stimulate action on improving productivity, the National Center held a conference in Washington, D.C., recently to discuss the effect of measurement on productivity improvement. Cosponsors were the Departments of Commerce and Labor and the National Science Foundation, which funds research on productivity measurement.

The Center is pursuing "a national policy for encouraging productivity growth consistent with the needs of the economy and natural environment, and the needs, rights and best interest of management, the work force and consumers." Its objective is improving the conditions under which technology and other productivity enhancing innovations can take place. This includes such activities as encouraging labor-management cooperation. The Center also plans to recommend changes in government regulations that will improve productivity without compromising legislative intent.

Former Commission Vice-Chairman Donald C. Burnham, of Westinghouse Electric Corp., stressed the importance of measurement in achieving a consistent rate of productivity improvement in all sectors of the economy.

According to Burnham, "Specific measurement of productivity is needed to make choices between alternative methods; to justify expenditures for projects; to judge performance of existing systems; to inspire competitive action; and to promote productivity improvement."

He expressed a belief that both the government and trade associations can play a role in stimulating more interest in measurement.

Other speakers and their topics included: Irving H. Siegel, advisor to the director of Commerce's Bureau of Domestic Commerce, Measuring Company Productivity; Jerome A. Mark, assistant commissioner for productivity and technological development, Bureau of Labor Statistics, U.S. Department of Labor, Measuring Industry Productivity; Marvin E. Gantz, Jr., executive vice president-mill products, Aluminum Company of America, Productivity Measurement at Alcoa; and Gerald E. Peck, executive vice president, National-American Wholesale Grocers Association, Measurement of Warehousing Productivity.

Siegel cited the opportunity trade associations have to contribute to improvement of national productivity by encouraging their members to adopt measurement programs. He urged them to promote the standardization of concepts, data and methods, and compile and disseminate comprehensive industry measures from company figures.

"An early benefit of productivity monitoring is the heightening of employee awareness of the desirability of improved performance," according to Siegel. "Measurement can help management to locate and diagnose operational dysfunctions and to appraise the consequences of remedial action."

Where industry statistics are also available, Siegel sees this as enabling a company to rate itself against the competition. In addition, he gave other uses for company figures: "the administration of incentive-pay programs; facilitating constructive dialogue between management and labor; and decision-making, policy formulation, and planning with regard to production, employment, marketing, and the acquisition and utilization of capital equipment and space."

According to Siegel, "Whether measurement is confined to departments or is broader in scope, the team responsible for installing and maintaining the system should preferably include a mix of relevant disciplines and enjoy high-level support. Without high administrative commitment, a measurement program is likely to wither; and, while it exists, it is more likely to be a toy than a tool."

Jerome Mark discussed the Bureau of Labor Statistics' figures and the uses to which they can be put. "When used in conjunction with other industry data, the productivity indexes assist in understanding changes in manpower utilization, projecting future manpower requirements, analyzing trends in labor costs, comparing productivity progress among countries, and examining the effects of technological improvements on industry employment and unemployment."

The BLS provides annual labor productivity measures for individual industries. At present, statistics are available for some 50 industries in the manufacturing, mining, transportation, communications and service sectors.

According to Mark, "The most striking thing that the indexes for the 50 industries illustrate is the wide variability that exists in the productivity growth rates among industries . . . for 1969-74, when the output per manhour for the entire private sector grew an average of 2 percent per year, the industry movements ranged from a high of a 10.4 percent per year gain for synthetic fibers to a low of a 4.6 percent per year decline for bituminous coal and lignite mining.

"The productivity rates in this period were strongly affected by cyclical changes. Short term movements in productivity generally are sensitive to changes in output which are reflections of changes in demand. . . . Longer term movements in

productivity, however, reflect more fun-amental changes. New technology, new nd different capital inputs, and changes n the quality and composition of the vork force are the major determinants of ecular changes in labor productivity."

Mark pointed out ways the industry roductivity indexes can be useful to ompanies: "They can serve as a bench-nark for companies to gauge their pro-uctivity change in relation to that of the ndustry that they are part of . . . The omparison, however, is only the first tep—a sort of triggering mechanism—alling for more analysis as to why and vhat can be done about it . . . The in-ustry productivity indexes can also be seful to firms and to trade associations s an aid to forecasting trends of the xpected patterns for an industry."

Marvin E. Gantz, Jr., of Alcoa, sees ncreasing production of goods and serv-ces as one of the best ways to fight in-ation, and increasing the output per nit of human time as "really the most ffective and immediately obtainable method for reducing costs in business."

In discussing the attempts at Alcoa Mill Products Division to improve productivity, he told of the company's shock to discover that "although output per manhour in Alcoa had increased 20 percent from 1958 to 1965, the increase in the industry for this same time period was about 60 percent."

This stimulated management to action. They established measurement standards and began tracking productivity change.

Since 1968, according to Gantz, "output per manhour in Alcoa's Mill Products has increased more than the output per manhour of the aluminum rolling and drawing industry as a whole."

Among the elements listed by Gantz for increasing productivity are money for new and improved equipment, technology input from research and development, and modification of operating practices and crew sizes.

Gantz added a final word of caution in regard to environmental goals and government reporting practices, urging a "balance between economic, environmental and energy requirements."

Gerald E. Peck of National-American Wholesale Grocers' Association (NAWGA) told how his organization helps its members, wholesale grocery distributors, to monitor their productivity. NAWGA's present productivity measurement program covers warehousing. A new program is being developed for performance analysis of the delivery operation. Together, warehousing and delivery are 84.5 percent of total expense of grocery wholesale operation.

NAWGA trains members in collecting data, computerizes it, and provides comparisons with previous years and with other operators of similar sales, physical size, items carried and other conditions influencing productivity.

The essence of the program is its isolation of strengths and weaknesses in basic functions, rather than in overall terms. It is designed as a tool for line management—with a summary report for the chief executive.

Better-Educated Workers Are More Productive, Ambitious; Have Differing Lifestyles

oday's better-educated U.S. worker is kely to be more productive than his redecessor who didn't go as far in chool, but he's also more likely to de-and a more challenging job. And his npact on the whole society could be uite a bit different.

High school graduates now make up ore than half of all workers in eight the 10 major occupational classifica-ons for men and 9 out of 10 occupations r women workers, says a new report om Commerce's Bureau of the Census.

In 1950 none of the "blue collar" occu-ations had a majority with a high school ploma. By 1975, a majority of the orkers in all major job groupings had nished four years of high school or more, cept for male laborers and female uipment and vehicle operators.

The large and rapid increase in the lucational level of workers may have nportant consequences for future em-oyment of persons with lower levels of lucation, the report theorizes. Employ-s with more education are expected to more productive and to require less aining than those with less schooling. n the other hand, workers who have ent 12 or more years in formal school-g may become dissatisfied with jobs hich require fewer skills. Already, 41 rcent of male laborers and 52 percent female laborers have completed four ars of high school or more.

The report identifies several other educational trends in the 25-year span from 1950 to 1975:

- High school graduates constituted one out of three of all adults 25 years of age or older in 1950, compared to two out of three in 1975;
- One out of 14 adults had completed four years of college in 1950, but in 1975 that proportion was one out of seven;
- Even though the size of the adult population increased by a third since 1950, the number of persons with less than four years of high school went down by approximately a fifth;
- Nearly four times as many black men had completed college in 1975 as in 1950.

These trends also create potential economic, social, and political implications:

—Spending patterns and tastes may change as the educational level of consumers rises;

—The number of years of schooling completed by those entering the labor force influences the types of jobs they seek and for which they qualify; and

—The proportion of persons who vote is largest among those in the upper education levels.

Detailed statistical tables in this report present data on years of schooling completed by the U.S. population in 1975 cross-classified by age, sex, race, Spanish origin, type of residence, and occupation.

Copies of the report, *Educational Attainment in the U.S.*, P-20, No. 295, may be obtained for $1.55 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce District Offices in major U.S. cities.

Sport Fishing's Economic Impact To Be Measured

The fish story, wherein the only limits were imposed by the teller's imagination or conscience, may be passing from the scene. Precise measurement may be coming to the recreational fishing industry!

The effects of marine recreational fishing upon this country's economy will be studied under a National Oceanic and Atmospheric Administration (NOAA) contract issued recently.

As sportfishermen use fishing equipment, boat rentals, motors, camping equipment, food and lodging, the survey will identify and evaluate the commerce created by the sale of these items.

The $70,329 contract, awarded by NOAA's National Marine Fisheries Service, will be completed in the spring of 1977.

Sources of information will include sampling surveys of supplies of goods and services from origin to point of sale. Other data may be supplied by state and public agencies, private organizations, and trade associations.

Among federal agencies, the NMFS is responsible for the development of conservation and management policies for marine fisheries resources for both commercial and recreational purposes. Over the years, a considerable body of knowledge has accumulated on the economics of commercial fisheries, but relatively little on recreational fishing.

The end product of the study will be a comprehensive document of the scope and value of marine recreational fishing in the United States.

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The National Weather Service also plays a major role in the program to increase boating safety. This NOAA agency prepares forecasts for shore areas of the U.S. every six hours, or more often when conditions are changing rapidly. Forecasts cover specific coastal areas, such as Block Island, R.I., to Manasquan, N.J. When strong winds or hazardous seas are anticipated, these forecasts include statements of the degree of hazard and the areas where warning signals will be displayed. Similar forecasts and warnings are issued for the Great Lakes and many inland lakes, reservoirs and waterways.

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In addition to its long-range weather broadcasts, the Coast Guard has 54 Coast Guard stations broadcasting with short-range VHF-FM radio transmitters. Other information available to the mariner is from the National Bureau of Standards time signals which are broadcast worldwide by stations WWV (Ft. Collins, Colo.) and WWVH (Kauai, Ha). Imposed on the time signal for certain portions of each hour is storm information for deep water vessels.

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A few drugs have been monitored for adverse reactions following their introduction (e.g. L-Dopa and methadone), but on a very small scale. These studies were agreed to by the manufacturers as a condition of approval.

Little is known about the costs and effectiveness of post-marketing surveillance systems. But legislation has been proposed which would, among other things, authorize FDA to require post-marketing surveillance for particular drugs. Clearly the agency could better use such authority if it has already tested actual systems of surveillance.

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Commerce Continues Petroleum Export Quotas For Third Quarter 1976

Export controls on petroleum and petroleum products will be continued for the third quarter of 1976. The Commerce Department initially placed controls on these commodities in December 1973, as a result of supply curtailments imposed by oil-producing countries.

Export quotas for the third quarter on petroleum products under quantitative restrictions are limited to historical export levels and are set at a total of 9.5 million barrels, or 103,624 barrels a day.

Details of the actions and country quotas are contained in Export Administration Bulletin No. 159, effective July 1.

In announcing the continuation of the controls the Department found that such action was appropriate and consistent with the national interest and the purposes of the Energy Policy and Conservation Act. The Department also announced that further regulations are being developed to implement the Act and will be promulgated in the near future.

Exporters were reminded of the provision of the Naval Petroleum Reserves Production Act of 1976 which prohibits the export of petroleum produced from the naval reserves. Regulations to administer that provision are being drafted. They will be published in a subsequent Export Administration Bulletin.

Ad Agencies Get Contracts To Promote Tourism To U.S.

Commerce's United States Travel Service (USTS) estimates that 87 percent of international visitors to the United States come from six countries. In an effort to reach more potential travelers in these countries, USTS has signed contracts with six advertising agencies abroad to carry out programs in Canada, Mexico, Japan, the United Kingdom, West Germany and France.

The contracts, which total more than $2 million, are: Canada, Baker Lovick Ltd.; Mexico, Japan and the United Kingdom, Young and Rubicam; West Germany, Slesina Bates; and France, J. Walter Thompson. The advertising campaigns will run during fiscal year 1977 (Oct. 1, 1976—Sept. 30, 1977).

By contracting with local agencies, USTS hopes to obtain the best possible creative approaches and media buys specially tailored to reach potential travelers in each market.

Calendar Of Business Events

July 21-22—St. Paul—Improving Productivity in Your Organization, Radisson St. Paul. Sponsors: Commerce Dept. and other government agencies. For information, Employer Education Service, 417 Business Administration Bldg., Univ. of Minn., Minneapolis 55455.

July 23—Duluth, Minn.—Business Opportunity/Federal Procurement Conference, Arena-Auditorium. Sponsor: Rep. James L. Oberstar. For information, Mr. Jody Kauchick, c/o Rep. Oberstar, 231 Federal Bldg., Duluth, Minn. 55802 (218-727-7474).

July 26-27—Chicago — Project Management: Designing the Matrix, Hyatt Regency O'Hare. Sponsor: The Wharton School, Univ. of Pa. For information, Heidi Kaplan, New York Mgt. Center, 360 Lexington Ave., New York 10017 (212-953-7262).

July 26-28—Washington—Program Budgeting, Georgetown Univ. For information, Continuing Management Education, SSCE, Georgetown Univ., Washington, D.C. 20057 (202-625-4353).

July 26-30—Akron, Ohio—National Energy Forum, Thomas Hall, Univ. of Akron. For information, Dr. Jim L. Jackson, Director, Center for Environmental Studies, Univ. of Akron, Akron, O. 44325 (216-375-7991).

July 27-28 — Clemson, S.C. — The New Supervisor, Clemson House, Clemson Univ. For information, Office of Professional Development, Clemson Univ. (803-656-220).

July 28—New York—Airline Industry Seminar, Waldorf-Astoria Hotel. For information, Financial Analysts Federation, 445 East 86th St., New York 10028 (212-427-9018).

July 29-Aug. 1—Woburn, Mass.—Solar Energy & Energy Conservation Exposition, Northeast Trade Ctr., Rt. 128. Sponsors: New England Council, Commerce Boston Office, others. For information, Tom Munson (617-933-8290 or 935-8090).

Aug. 1-3—Marlboro, Mass.—Plain Paper Reprographics, The Learning Center. For information, Institute for Graphic Communication, Inc., 375 Commonwealth Ave., Boston, Mass. 02115 (617-267-9425).

Aug. 1-6—Chicago — Chicago Gift Show, McCormick Place, Palmer House & McCormick Inn. For information, Irene Weissman, George Little Mgt., Inc., 261 Madison Ave., New York 10016 (212-986-4700).

Aug. 2-4—Los Angeles—Solar Energy for Domestic Heating & Air Conditioning, University Hilton. Sponsor: New York Univ. For information, Heidi Kaplan, see address above.

Aug. 2-4—Chicago—Minicomputers, Kellogg Ctr., Univ. of Chicago. Sponsor: Univ. of Chicago. For information, New York Mgt. Center (212-953-7266).

Aug. 2-4—Chicago—Systems Analysis & Design, Kellogg Ctr., Univ. of Chicago. Sponsor: Univ. of Chicago. For information, New York Mgt. Center (212-953-7266).

Aug. 3-5—Washington—Improving Managerial Skills, Georgetown Univ. For information, see address above.

Aug. 3-5—Andover, Mass.—Product Opportunities in the Office of Tomorrow, Institute for Graphic Communication Conference Center. For information, IGC, see address above.

Aug 6—Cincinnati — Business Opportunity/Federal Procurement Conference, Stouffer's Cincinnati Towers. Sponsor: Rep. Bill Gradison. For information, Marcia Rusche, c/o Rep. Gradison, Room 8008, Federal Office Bldg., 558 Main St., Cincinnati, Ohio 45202 (513-684-2456).

Aug. 9-11—Boston—Project Management, Hotel Sonesta. Sponsor: New York Univ. For information, Heidi Kaplan, see address above.

Aug. 10-12—Boulder, Colo.—Symposium on the Simulation of Computer Systems, National Bureau of Standards. For information, Stephen Schobel, FOB4, Room 3107, Bureau of the Census, Washington, D.C. 20233 (301-763-7746).

Aug. 13—Bangor, Me.—Business Opportunity/Federal Procurement Conference, Husson College. Sponsor: Rep. William S. Cohen. For information, Mr. Dale Gerry, c/o Rep. Cohen, Federal Bldg., Bangor, Me. 04401. (207-942-8271, ext. 417).

Aug. 18—Olean, N.Y.—Business Development Conference, St. Bonaventure University. Sponsor: Rep. Stan N. Lundine. For information, Robert F. Magee, Commerce Buffalo Office.

Aug. 22-25—Salt Lake City — Discover America International Pow Wow & Travel Mart, Salt Palace. For information, Peter Cass, Discover America Travel Organizations, Inc., Suite 920, 1110 Connecticut Ave. NW., Washington, D.C. 20036 (202-293-1433).

Top-Level Committees Discuss Trade Issues

PRESIDENT'S EXPORT COUNCIL, INTER-AGENCY COMMITTEE MEET JOINTLY FOR FIRST TIME

At the first joint meeting of the President's Export Council and the President's Interagency Committee on Export Expansion, held at the Commerce Department July 13, members of the Council suggested that the United States has failed to develop and pursue a consistent, future-oriented outlook on international trade and investment.

The President's Export Council is a group of corporate chief executives representing multinational corporations. The President's Inter-Agency Committee, representing 13 government departments and agencies, coordinates actions affecting U.S. export performance. Both were created in 1973.

The need for a clear and consistent U.S. international economic policy was articulated by Reginald H. Jones, Chairman of the General Electric Co. The members of the Council stressed the need for realistic rates of currency exchange, stability in tax treatment of foreign source income, greater government efforts promoting exports abroad, and mutually advantageous trade and investment relations with the developing nations.

The issue of whether U.S. Eximbank financing is competitive with the export financing programs of major U.S. competitors—Japan, France, Federal Republic of Germany—was also discussed. Stephen M. DuBrul, Jr., President of the Export-Import Bank, stated that "Eximbank's financing is somewhat less competitive today than it has been, but the recent unilateral declarations on export credit terms should help to improve the Bank's competitiveness."

Secretary of Commerce Elliot L. Richardson, as chairman of the Inter-Agency Committee, co-chaired the joint meeting with Fletcher L. Byrom, chairman of the Council. Richardson agreed with the Council members on the need for the Department's export promotion programs, particularly as they apply to the non-exporting members of the U.S. business community. The question of the beneficial effect that exports and multinational corporation activities have on domestic employment figures was recognized by Secretary Richardson as being fundamental to further dialogue between the Federal Government and the business community. In this regard, he recognized the importance of developing an adequate data base which will show the effects of our trade and investment actions on both the U.S. and world economies.

FIRST JOINT MEETING—*More than 30 business and government representatives participated in the President's Export Council and Inter-Agency Committee talks on July 13. Frederick B. Dent, Special Representative for Trade Negotiations (left); Fletcher L. Byrom, chief executive, Koppers Co.; Elliot L. Richardson, Secretary of Commerce; and Reginald H. Jones, Chairman, General Electric, led the joint discussions at the U.S. Department of Commerce in Washington.*

UPDATED MARKET SHARE REPORTS PROVIDE IMPORT DATA FOR 87 COUNTRIES

Eighty-seven country reports in Commerce's Market Share Reports series have just been released and are now available for sale to U.S. exporters. With this series, the Commerce Department's Bureau of International Economic Policy and Research continues to provide the latest information on imports of manufactured products into the world's leading markets.

This release updates annual reports first published 10 years ago to give American businessmen data on the U.S. share of products imported by foreign nations. The program's success has been demonstrated by the many companies now regularly purchasing the reports for market research use.

These reports provide data in a convenient form on trends in the values of products exported from the United States as well as from our major competitors. Computerized data have made possible the publication of a vast array of information on 880 manufactured products imported over a five-year period in separate reports for 87 nations. Language and currency problems have been eliminated by translation of all foreign information into standard U.S. terminology and dollar values.

Included in the new release are reports for all Western European countries, Japan, Canada, Australia, New Zealand, each of the OPEC nations (except Iraq), many developing nations, and the communist areas. Among the new titles added to the series for the first time this year are reports for Bangladesh, Gabon, and Qatar.

Machinery, transport equipment, chemicals, consumer goods, and other manufactures are covered in detail for each country. Current dollar values (unadjusted for inflation) for imports from the world, the United States, and eight other major sources of supply are shown for 1970 through 1974 for each item. The U.S. percentage share has been calculated for each product.

Downward trend in Europe

A sampling of the 87 reports shows a downward trend in the U.S. share of manufactures imported into Western European countries, as measured in current dollars. From 1970 to 1974 the U.S. share of the French import market for manufactured goods contracted from 12 percent to 10 percent, in Germany, from 11 percent to 8 percent, and in the United Kingdom, from 19 percent to 14 percent. In the Far East, U.S. sales of manufactures also accounted for a declining share of certain major markets in this period, notably in Japan where U.S. goods supplied 33 percent of the import market in 1974 compared to 41 percent in 1970. In Taiwan, Singapore, and Malaysia, however, U.S. sales of manufactured products expanded faster than those of its competitors.

American companies searching for new sales outlets can make extensive use of the data for their products in these country reports. The size of the import market, the change in its size in the five-year period, and the market penetration of the United States and other suppliers are shown for each type of manufacture. For example, exporters of construction materials and equipment wishing to explore market potential may be especially interested in the Saudi Arabia report. That country's purchases of steel pipes have risen by $165 million since 1970. U.S. sales, however, increased by only $23 milion, and showed little change in market share. Japan was the primary source. Saudi imports of excavating and leveling machinery increased tenfold in these years, with especially strong sales gains by British and Japanese manufacturers. The U.S. share of the total dropped by a third, despite considerably larger shipments.

A petrochemical manufacturer interested in exporting to Singapore could investigate plastic materials such as polymerization products, manufactured fertilizers, and antiknock compounds. The Singapore report shows that extensive growth occurred in imports of these products. Singapore's development as a manufacturing center and assembly plant for Southeast Asia has resulted in a sizable increase in many other manufactured imports. Capital goods exporters would find a growing market for machine tools, electric power machinery, trucks, and motor vehicle parts.

The report for Venezuela, another OPEC market, shows U.S. exports of copper pipes expanded so sharply that they accounted for over half of the import market and accounted for double their 1970 share. In contrast, a manufacturer of duplicating and addressing machines examining the market data for Brazil would find the 1974 U.S. portion only half the 44 percent registered in 1970. German and Japanese deliveries of such equipment quadrupled, and together accounted for over a third of Brazil's imports.

A rapidly growing market for metalworking machine tools is shown in the Philippine Market Share Report. Although imports of these tools from all sources expanded five times in value, U.S. sales grew twice as fast. The increase in the U.S. portion to 24 percent in 1974 was particularly at the expense of Germany, whose sales, measured in dollars, were unchanged with a consequent sharp fall in share. Japanese manufacturers were able to increase their sales to the point where they supplied almost half of Filipino metal-working machine tool imports.

In addition to the country series, new Commodity Reports are due to be released in late autumn. They will provide data for two additional years, covering the period 1971-75. *Commerce America* will announce the availability of those reports.

Country reports listed

Market Share Reports for the countries listed below may be obtained for $4.40 each by writing to the National Technical Information Service, Springfield, Va. 22151. To order, the prefix "PB 251460-" should be added to the country numbers. Reports on countries preceded by an asterisk are based on import data. The remainder, for countries that do not publish up-to-date statistics capable of translation into standard nomenclature, are based on export data of the United States and the 13 other major industrial nations.

Algeria, 5001; Argentina, 5002; *Australia, 5003; *Austria, 5004; Bangladesh (1973-74 data only), 5083; *Belgium-Luxembourg, 5005; Bolivia, 5006; *Brazil, 5007; Bulgaria, 5077; Cameroon, 5008; *Canada, 5009; Chile, 5010; People's Republic of China, 5076; Colombia, 5011; Costa Rica, 5013; Cuba, 5085; Czechoslovakia, 5078; *Denmark, 5014; Dominican Republic, 5015; Ecuador, 5016; *Egypt, 5068; El Salvador, 5017; Ethiopia, 5018; *Finland, 5019; *France, 5020; Gabon, 5086; *Federal Republic of Germany, 5021; Democratic Republic of Germany, 5079; Ghana, 5022; *Greece, 5023; Guatemala, 5024; Honduras, 5025; *Hong Kong, 5026; Hungary, 5080; India, 5027; *Indonesia, 5028; Iran, 5029; *Ireland, 5030; *Israel, 5031; *Italy, 5032; Ivory Coast, 5033;

Jamaica, 5034; *Japan, 5035; Kenya, 5036; *Republic of Korea, 5037; Kuwait, 5038; *Lebanon, 5039; Liberia, 5040; *Libya, 5041; Malaysia, 5042; *Mexico (1969-73), 5043; Morocco, 5044; *Netherlands, 5045; *New Zealand, 5046; Nicaragua, 5047; Nigeria, 5048; *Norway, 5049; *Pakistan, 5050; Panama, 5051; Peru, 5052; Philippines, 5053; Poland, 5074; *Portugal, 5054; Qatar, 5084; Rhodesia, 5087; Romania, 5081; Saudi Arabia, 5055; *Singapore, 5056; South Africa, 5057; *Spain, 5058; *Sweden, 5059; *Switzerland, 5060; Taiwan, 5061; Tanzania, 5062; *Thailand, 5063; Trinidad and Tobago, 5064; *Tunisia, 5065; *Turkey (1969-73), 5066; Uganda, 5067; United Arab Emirates (1972-74 data only), 5082; *United Kingdom, 5069; USSR, 5075; Venezuela, 5070; Republic of Viet-Nam, 5071; *Yugoslavia, 5072; Zaire, 5012; Zambia, 5073.

Official Trade Briefs

This article is another in a series of reports that describes actions affecting world trade, as compiled by the Legislative and Tariff Policy Division of the International Economic Policy and Research Bureau's Office of International Trade Policy.

THE PRESIDENT

Import Relief Decisions: President Ford has directed that expedited trade adjustment assistance be made available to **mushroom** growers and canners. This action followed a U.S. International Trade Commission finding under the "escape clause" provisions of the Trade Act of 1974 that imports of canned mushrooms are entering the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry and its recommendation for adjustment assistance. In 1975, U.S. imports of canned mushrooms totaled $40.8 million. Taiwan and South Korea are the leading exporters to the United States.

In another "escape clause" determination, the President denied import relief to domestic producers of **ferricyanide and ferrocyanide (iron blue) pigments.** The ITC had recommended that increased tariffs be imposed on imported pigments. In denying relief, the President noted that, since the period covered by the ITC report, the domestic industry is recovering and the anticipated demand for iron blue pigments cannot be met by present domestic productive capacity. Also, imposition of increased tariffs would substantially increase prices at a time when curbing inflation is a priority objective of national economic policy. In 1975, imports of this pigment were $1.8 million.

Corporate Payments Initiatives: The President announced new initiatives to be taken concerning policy toward corporations that engage in questionable payments to officials or citizens of other nations. These initiatives, which were based on the findings of a task force headed by Secretary of Commerce Elliot Richardson, include: the drafting of legislation that would require corporate disclosure of all payments made with the intention of influencing foreign government officials; Presidential support of pending legislation to strengthen the law requiring corporations to keep their shareholders fully and honestly informed about their foreign behavior; and a request to major trading partners to cooperate in reaching agreement on a new code to govern international corporate activities.

Legislation Signed: The President signed H.R. 13680 which authorizes funds through fiscal year 1977 for international security assistance and arms export activities. (Public Law 94-329).

SUPREME COURT

The Supreme Court ruled that the President had the power last year to impose the $2 a barrel license fee on imported foreign oil which was designed to retard imports and encourage conservation. In the unanimous decision, the Court held that Congress, in a series of trade acts, had given the President a measure of discretion in deciding how to limit oil imports in the national interest. By this decision the Court reversed the U.S. Court of Appeals ruling that the fees were actually tariffs and that Congress could not have intended to give the President tariff authority which was in the exclusive control of the Congress. The $2 fee has been dropped, but a smaller fee designed to preserve domestic refining capacity will continue on the basis of this decision.

CONGRESS

Bills Passed — Senate: The Senate passed—with non-trade-related amendments—and returned to the House H.R. 12033 which continues until June 30, 1979, suspension of duty on **manganese ore** (including ferruginous ore) and related products.

Bills Passed—House: The House passed H.R. 2177, which provides for exemption from duty of **certain components and materials installed in aircraft** previously exported from the United States; H.R. 8656 which amends the Tariff Schedules of the United States to provide for duty-free importation of **loose glass prisms** used in chandeliers; and H.R. 12254, which suspends the duties on certain **bicycle parts and accessories** until the close of Dec. 31, 1979.

Bills Reported—Senate: The Committee on Finance reported favorably to the full Senate H.R. 9401 which would continue until June 30, 1978, suspension of the import duty on **certain horses.**

Committee Hearings — Senate: The Subcommittee on Minerals, Materials and Fuel of the Committee on Interior and Insular Affairs held hearings to receive a status report on the United Nations Law of the Sea Conference. Testimony was heard from Ambassador T. Vincent Learson, Special Representative of the President, and other members of the U.S. delegation to the Conference and Administrative witnesses. The Subcommittee was recessed subject to call. The Committee on Foreign Relations held hearings on S. 3454 which authorizes U.S. acceptance of fundamental changes in the Articles of Agreement of the International Monetary Fund, and providing U.S. consent to an increase in its quota in the Fund.

The Subcommittee on Foreign Agricultural Policy and on Agricultural Production, Marketing and Stabilization of Prices of the Committee on Agriculture and Forestry held hearings to receive testimony on the preliminary findings of General Accounting Office investigators who have been reviewing Department of Agriculture management of farm export policies since the large **grain** sale to the Soviet Union. The Subcomittee on Agircultural Production, Marketing and Stabilization of Prices also held hearings on S. 2440 which would subject imported **tomatoes** to standards comparable to those applicable to domestic tomatoes. The hearings were adjourned subject to call.

Committee Hearings — House: The Committee on International Relations held hearings on foreign boycotts, high-technology export controls and nuclear export controls, receiving testimony from Congressional and public witnesses. The Subcommittee on Commerce, Consumer and Monetary Affairs of the Committee on Government Operations began hearings on banks' participation in the Arab boycott and activities of federal banking agencies and the Securities and Exchange Commission to enforce adherence to U.S. policies against the boycott. The Subcommittee on Courts, Civil Liberties and the Administration of Justice of the Committee on the Judiciary continued the markup of H.R. 2223 to revise the Copyright Law.

The Subcommittee on International Trade, Investment, and Monetary Policy of the Committee on Banking, Currency and Housing approved H.R. 13955 for full committee action. This bill provides for amendment of the Bretton Woods Agreements Act. The Subcommittee on International Economic Policy of the Committee on International Relations held a hearing on H.R. 13684, the International Investment Survey Act of 1976 and related bills which authorize the collection of statistics on multinational investment by U.S. based companies. The Subcommittee also approved for full committee action a clean bill in lieu of H.R. 11532 which would terminate insurance by the Overseas Private Investment Corporation of firms making payments to foreign officials.

Committee Hearings—Joint: The Subcommittee on Energy of the Joint Economic Committee held hearings to consider the relationship between multinational corporations and the Organization of Petroleum Exporting Countries and

their possible effect on U.S. foreign policy. Several Administration witnesses, including Secretary of Commerce Elliot Richardson, testified before the Subcommittee. The Subcommittee on Inter-American Economic Relationships began hearings to examine U.S economic relations with Latin America and the Caribbean area. Testimony was presented by witnesses from the academic community.

New Legislation: In the second session of the 94th Congress, 139 trade and related bills have been introduced. Bills not previously reported in this column include: H.R. 14272, to amend the Tariff Act of 1930 with respect to the marking of imported articles and containers; H.R. 14294, to require that such imported products made in whole or in part of imported **honey** be labeled "imported," to provide for inspection of imported honey products, and to require that imported honey and honey products comply with certain minimum standards of health; H.R. 14297 and H.R. 14574, to increase for a 5-year period the duty on certain **hand tools**; H.R. 14318, to create a committee on Foreign Investment in the United States to monitor the impact of foreign investments in the United States, both direct and portfolio, and to provide preinvestment guidance to potential foreign investors; H.R. 14375, to amend the Export Administration Act of 1969 to strengthen the antiboycott provisions of such act and to amend the Securities Exchange Act of 1934 to enhance investor disclosure provisions of that Act; H.R. 14379, H.R. 14315, and H.R. 14490, to amend the Tariff Schedules to **repeal special tariff treatment** accorded to articles assembled abroad with components produced in the U.S.;

H.R. 14590, to amend the Tariff Schedules to require **proof of liability insurance** for automobiles entered into the United States for personal use by nonresidents and foreign government personnel; H.R. 14681, to provide for **termination of investment insurance** and guarantees issued by the Overseas Private Investment Corporation in any case in which the investor makes a significant payment to an official of a foreign government to influence the actions of such government; H.R. 14682, to provide the American consumer the assurance that foreign **dairy products** marketed in the United States meet minimum standards of quality by requiring the inspection of these products at U.S. points of entry, at the foreign milk processing plants and at foreign dairy farms; H. Res. 1399, expressing the sense of the House relative to foreign **palm oil** development loans; S. 3524, to amend section 409 of the Trade Act of 1974 relating to freedom of emigration from communist countries; and S. 3562, to amend the Tariff Schedules to provide that certain **netting belts** used in connection with the growing and harvesting of mushrooms be admitted into the United States duty free.

U.S. INTERNATIONAL TRADE COMMISSION

Antidumping Cases: In a 5-0 vote, the Commission decided that there is no injury, or likelihood of injury, to an industry in the United States from imports of **polymethyl methacrylate** (PMMA) from Japan. The Treasury Department had previously decided that PMMA is being or is likely to be sold in the United States at less-than-fair value (LTFV). Consequently, no dumping duties will be placed on imports of PMMA from Japan.

The Commission ruled 4-2 that a U.S. industry is being injured by reason of imports of **water circulating pumps** sold at LTFV from the United Kingdom. Special dumping duties will be assessed on all subject merchandise imported at LTFV after Nov. 26, 1975.

Receiving advice from the Treasury Department that **alpine ski buildings and parts thereof** from Austria, Switzerland, and West Germany are being or are likely to be sold at LTFV, the Commission began investigations to determine whether an industry in the United States is being or is likely to be injured, or is prevented from being established by reason of such imports.

The Commission notified the Treasury Department that Treasury's investigation of **monosodium glutamate**, allegedly dumped from Korea, should not be terminated at this time. In a unanimous decision, the Commission ruled negatively in their investigation as to whether there was "no reasonable indication of injury or the likelihood of injury to an industry in the United States" from imports of MSG from Korea. Consequently, the Treasury Department will continue its investigation instituted under the Antidumping Act.

Section 337—Unfair Trade Practices: In response to allegations by the Solder Removal Co. and Jesse C. Hood both of Covina, Calif., claiming unfair methods of competition and unfair acts, within the meaning of section 337 of the Tariff Act of 1930, in the importation and sale of certain **solder removal wicks**, the Commission has begun an investigation of the matter. The complaintants further alleged that the effect or tendency of the unfair acts is to destroy or substantially injure an efficient U.S. industry. Signalarm, Inc. of Springfield, Mass. and Spirig of Switzerland were named respondents upon whom the complaint will be served.

Section 201—Import Relief: In a 3-2 vote, the Commission decided that increased imports of **honey** constitute a threat of serious injury to the domestic honey industry. The Commission recommended to the President that a tariff rate quota system be established which would allow up to 30 million pounds of honey to enter the United States at the current tariff. All imports exceeding that amount in any given year would be subject to an additional tariff of 30 percent ad valorem during the first three years after the relief became effective. During the fourth year the additional tariff would decrease to 20 percent, and during the fifth year to 10 percent, after which the relief would terminate.

In a 4-1 decision, the Commission ruled negatively on a petition which charged injury from increased imports of **round stainless steel wire** filed by the Stainless Steel Wire Industry Committee. No import relief will be granted.

In view of submissions received from the firm Knots to You, Inc., Van Nuys, Calif., and others, the Commission instituted an investigation under section 201(b) of the Trade Act of 1974 to determine whether **plant hangers** of wood, of vegetable fibers, of wool, of manmade fibers, of iron or steel or copper, of leather, or of shell are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing articles like or directly competitive with the imported articles. Public hearings will be held in Los Angeles Aug. 24, and in Washington, D.C., Aug. 30. Requests to appear at the hearings should be received in writing by the Secretary of the Commission in Washington no later than noon the fifth day preceding the hearings.

LABOR DEPARTMENT

Report on Iron Blue Pigments Industry: A study released by Labor indicates that as many as 36 workers in the **iron blue pigments** industry may be eligible for trade adjustment assistance over the next year. The study was conducted after the International Trade Commission determined that increased imports of the pigments are a substantial cause of injury to the domestic industry. As of June 18 the Department had not received petitions for certification of eligibility.

Adjustment Assistance—Workers: The Department certified workers at several firms as eligible to apply for trade adjustment assistance. These workers have become unemployed as a result of increased imports. The workers certified (numbers are approximate) had been employees of the following firms: Brown Shoe Co., St. Louis, Mo. (**footwear**); Do-All Brassiere Corp., Brooklyn, N.Y. and L. and W. Brassiere Co., New York (**brassieres**), 40; Atlas Tile & Marble Works, Inc., Brooklyn, N.Y. (**fabricated marble and granite**), 10; Joseph Perrella, Inc., Gloversville, N.Y. (**golf gloves**), 20; Ambroson Gloves, Inc., Gloversville, N.Y.

(**sport gloves**), 20; Alsa Footwear, Inc., Wilkes-Barre and Hazelton, Pa. (**slippers**), 150; Burnham-Edina Mfg. Co., Edina, Mo. and Apex Glove Co., Milwaukee, Wis. (**work gloves**), 100;

The following manufacturers of **men's clothing:** Alatex, Inc., Andalusia, Enterprise, Troy and Brantley, Ala., 1,400; Manhattan Shirt Co., Jessup, Americus and Ashburn, Ga. and Winnsboro, S.C., 635; Arthur Winer, Inc., Gary, Ind., 240; Albert Given Mfg. Co., East Chicago, Ind., 150; and Melton Shirt Co., Batavia, N.Y., 25;

Ford Motor Co., Lima, Sharonville and Cleveland, Ohio, Warren, Woodhaven, Dearborn and Utica, Mich. (**automobiles and automobile transmissions**) 22,300; Allegheny Ludlum Steel Corp, Breckenridge and West Leechburg, Pa., and New Castle, Ind., Republic Steel Corp., Canton and Massillon, Ohio, Carpenter Technology Corp., Union and Jonesburg, N.J. and Colt Industries-Crucible Steel, East Troy, Wis., and Carrollton, Ga. (**stainless steel products**), 4430; D. Seidman's Sons, Philadelphia (**knit headwear**), 80; Friedman Marble & Slate Works, Inc., Long Island City, N.Y. (**fabricated marble and slate**), 10; General Motors Corp., Lordstown, Ohio and Massena, Tonawanda and Buffalo, N.Y. (**subcompact autos**), 6,000.

The Department denied petitions for trade assistance for workers of the following companies: Bristol Clothing Mfg., Inc., New Bedford, Mass. (**clothing**), 60; Lebanon Knitting Mills, Pautucket, R.I. (**knit fabric**), 60; R. and R. Toy Mfg. Co., Inc., Pen Argyl, Pa. (**stuffed toy animals**); Ford Motor Co., 25 plants in Ohio, Michigan, Illinois, Alabama, Tennessee, New York and Indiana (**component parts for autos**), 26,900; Electralloy Corp., Oil City, Pa. (**stainless steel ingots**), 100; Cyclops Corp., Houston, Tex., and Sharon, Pa. (**steel pipe products**) 280; Green River Steel Corp., Owensboro, Ky., and Ohio Steel Tube Co., Shelby, Ohio (**specialty steel products**), 885; General Motors Corp., 64 plants in Michigan, Ohio, New York, Pennsylvania, Indiana, Illinois, New Jersey, Wisconsin, Connecticut, and Kansas (**component parts for autos**), 8,000;

Sun Clothes, Inc., Philadelphia (**men's swim wear**), 160; Penn-Birmingham Bolt Co., Scenery Hill, Pa. (**steel fasteners**); Ohio Nut & Washer Co., Mingo Junction, Ohio (**flat washers**); Amerace Corp., Strongville, Ohio (**nylon patches**); Mark Shirt Co., Cincinnati (**shirts and blouses**); Cyclops Corp., Dover, Ohio (**galvanized steel sheets and coils**); Dubow Sportings Goods, Chicago (**golf clubs and balls**); Standard Nut & Bolt Co., Cumberland, R.I. (**industrial fasteners**); Pilgrim Screw Corp., Providence, R.I. (**stainless steel screws**);

Slack Fashion, Inc., New York (**clothing**); Magnavox Co., Fort Wayne, Ind. (**electronic consumer products**), 750; Rollway Bearing Co., Liverpool, N.Y. (**cylindrical roller bearings**), 330; Teledyne, Inc., East Carnegie, Pa., Cyclops Corp., Wheatland, Pa., U.S. Steel Corp., Vandergrift, Pa., Republic Steel Corp., Ferndale, Mich., and California Strip Steel Corp., Los Angeles (**specialty steel products**), 815; Lear Siegler, Inc., Union City, Tenn. (**auto seat assemblies**); Philco-Ford Corp., Blue Bell, Pa. (**marketing of company products**);

Moderne Glove Co., Gloversville, N.Y. (**gloves**); Wohl Shoe Co. Warehouse, St. Louis, Mo. (**warehouse services**); Belle Counter Co., Belle, Mo. (**counters for shoes**), 20; GTE Sylvania, Inc., Emporium, Pa. (**automated equipment and television tube yokes**), 70; Brasscraft Mfg. Co., Detroit (**brass plumbing fittings**); Chromalloy American Corp., San Antonio, Tex. (**metal coatings for jet aircraft engine parts**), 300; Bristol Laboratories, Syracuse, N.Y. (**antibiotics**), 750; and Copperweld Steel Co., Warren, Ohio (**steel products**), 1,400.

Investigations—Workers: Trade adjustment assistance has been sought during the past month by workers in about 80 firms. The majority of the firms manufacture **iron and steel products, clothing, footwear and automotive components and services.**

TREASURY DEPARTMENT

Countervailing Duty Cases: The Department reached final affirmative determinations in the countervailing duty investigation of **cheese** from Finland and Sweden, accounting for $12.7 million of U.S. imports in 1975. However, the countervailing duties have been temporarily waived for both countries since steps have been taken to reduce substantially the adverse effects of the bounties or grants.

The Department also initiated three countervailing duty investigations concerning U.S. imports of **bicycles** from Taiwan ($10.9 million in 1975) **cotton yarn** from Brazil ($2.5 million in 1975), and **industrial fasteners** (nuts, bolts and screws) from Japan ($134 million in 1975). If the Department finds that bounties or grants are paid or bestowed on the imported merchandise, an additional duty equal to the bounty or grant will be assessed. Preliminary decisions in all three cases are due in October and final determinations will be announced in April 1977.

Antidumping Cases: The Department announced that **Alpine ski bindings and parts** thereof from Austria, Switzerland, and West Germany ($3 million in 1975) are likely to be sold at LTFV in the United States. The case has now been referred to the U.S. International Trade Commission for determination of whether the sales at LTFV are injuring a domestic industry. If injury is found, dumping duties will be assessed on the subject ski bindings on an entry-by-entry basis. Treasury also began antidumping procedures concerning **round head steel drum plugs** from Japan. Imports of the plugs from Japan totaled $10,000 last year.

COMMERCE DEPARTMENT

Adjustment Assistance—Firms: Secretary Elliot Richardson announced approval of a $1 million trade adjustment assistance loan for Glamorise Foundations, Inc. of Willimsport, Pa. Glamorise, which employs over 180 persons, will use the loan to provide working capital for a program aimed at regaining its competitive position in the women's **foundation garments** market.

INTERNATIONAL

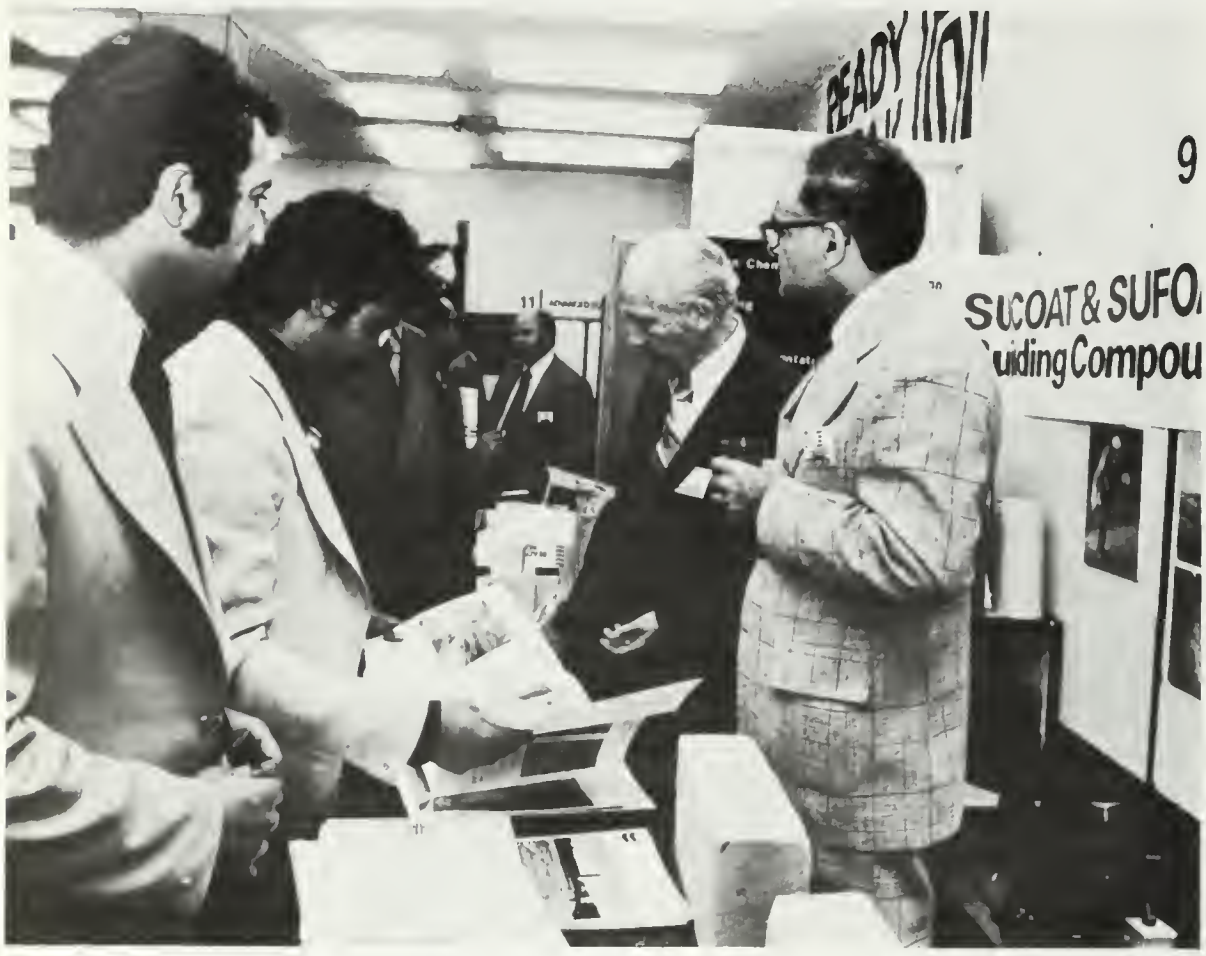
Foreign Antidumping Actions—Canada has informed the United States that, in accordance with Section 13(1) of its Antidumping Act, an investigation has been initiated respecting the alleged injurious dumping into Canada of **steam traps, pipeline strainers, automatic drain traps** for compressed air service, **thermostatic air vents and air eliminators, including parts, screens, and repair kits** pertaining thereto, produced by or on behalf of Sarco Co., Inc., Allentown, Pa.

A similar investigation has been initiated for **painted aluminum rollformed sheets,** and related **parts** for use in the manufacture of stepdown awnings, exported by Wrisco Ltd. of Detroit.

After a preliminary determination of dumping into Canada of **gymnasium equipment** produced by Nissen Corp. of Cedar Rapids, Iowa, Canada's Antidumping Tribunal has initiated an inquiry to determine injury.

Canada has also informed the United States that as a result of investigations carried out in accordance with Section 13(1) of its Antidumping Act, it has been determined that certain **gasoline powered chain saws** manufactured by McCulloch Corp. of Los Angeles and by Beaird-Poulan of Shreveport, La. have been or are being dumped and that the margin of dumping is such that the actual or potential volume thereof is not negligible. A similar determination was reached respecting **luxury cat food** produced or exported by Nine Lives from the United States into Canada. Both cases have been referred to the Antidumping Tribunal for consideration of material injury and the amount of provisional duty to be paid.

Canada's Antidumping Tribunal made a finding of no material injury with respect to dumping into Canada of **mirror tile** originating in the United States. Consequently, the related antidumping proceedings have been terminated.



BUILDING MATERIALS SHOW, TEHRAN—*Prospective Iranian buyers question U.S. company representatives about their products at Chevron Chemical's booth.*

Concrete Forms Get Top Attention At Building Exhibition In Tehran

The current construction boom in Iran is expected to last for some time, even though many projects are being curtailed because of the decrease in oil revenues relative to returns forecast last year.

A Tehran U.S. Trade Center show, held just as the new construction season was getting under way, caught sharp buyer interest by displaying the latest in building materials and equipment. Concrete forms of all types seemed to attract the greatest level of attention, and clearly represented the most basic and radical departure from traditional Iranian construction techniques in the exhibition. Of the 31 participants, all but one were new to the market. Attendance represented a good cross-section of those engaged at every level of the construction industry.

As the construction boom continues, technological improvements are beginning to be felt in the building of large commercial and industrial structures. Residential housing is still less advanced.

Prices for some of the products displayed are higher than for those imported into Iran from third country suppliers. Shipping costs contribute largely to this differential, but most exhibitors believed that they could be price-competitive in the market. U.S. products with a clear technological advantage render pricing of little importance, and some U.S. products are considered technologically or qualitatively superior to those of third country suppliers. Based on the experience of the recent exhibition, such products would include—but not be limited to—concrete forming equipment, plumbing equipment, broadloom carpeting, prefabricated housing, and aluminum window systems. Some products—for example, polymer door systems—have no third country competition.

As for more basic equipment and supplies, domestic Iranian industry probably will fill whatever gaps currently exist; thus, importation of these products will become progressively less attractive. Some very basic items, however—for example, carpentry tools—may enjoy a good market if domestic supply and delivery problems can be overcome.

Floor sales during the exhibition totaled $1.7 million and 12-month projections, $28.6 million. Six representatives were appointed, and 19 agreements were under negotiation as the show closed.

New Zealanders Buy U.S. Computers, Business Machines, Exhibitors Report

New Zealanders demonstrated an unusually high degree of interest in AMTECH '76, a recent U.S. exhibition in Auckland. The exhibition, staged "off-site" by the U.S. Trade Center in Sydney, Australia, featured computers, business machines and systems, and advanced graphic arts equipment.

Remembering the solid success of the preceding triennial event, AMTECH '73 in Wellington, several exhibitors had allocated their entire year's promotional budget for participation in this show. Thirty companies, representing 52 U.S. manufacturers, took part. Despite the small size of the New Zealand market (population, three million), and the current sluggishness of the economy, floor sales totaled almost $1 million, and 12-month projected sales, $12.1 million. U.S. products at present are price-competitive in the area.

During the event, 16 exhibitors presented seminar papers on their areas of technical expertise. "The seminar program, combined with the high quality of the exhibition, provided a highly effective means of exchanging the latest and most advanced technology," said U.S. Ambassador Armistead I. Selden Jr., who viewed the exhibits on opening day.

AMTECH '76, AUCKLAND—*Tony Maxwell enters attendance registration information into Datapoint minicomputer as Clive Bendon watches visual readout on display screen in Sigma Data Corp. (Australasia) Pty. Ltd. booth.*

MIXED INDICATORS BLUR AUSTRALIAN OUTLOOK

Although there is disagreement as to when—or even whether—economic recovery began in Australia, it is clear that it is at best a weak and halting process. Recent private surveys as well as informal soundings suggest an attitude of cautious optimism—widespread but by no means universal—on the part of the business community. This may mostly reflect business attitudes about the change in government which took place in December rather than visible economic trends. It may also be a hopeful reaction to the good economic news coming from the United States. In any case current indicators offer scant evidence of recovery, according to the U.S. Embassy in Canberra.

The unemployment rate (seasonally adjusted) was down early this year a full percentage point from its October high of 5.2 percent of the labor force. The total number of unemployed, including school-leavers, declined almost 20 percent.

But other employment indicators were flashing caution. Unfilled vacancies, after increasing substantially in two of the previous three months and holding steady in the third, turned down in February by 3 percent. The number of persons receiving unemployment benefits showed a similar turnaround when, after three successive months of decline, the total rose by 4 percent. Thus, data suggesting improving employment, which in any case have been beset by technical uncertainties regarding their interpretation, may have been misleading.

A favorable trend during 1975 was the steady decline in the annual rate of increase of weekly wages. In December 1974 this indicator stood at 35.7 percent for adult males. A decline began in April 1975 and by December the annual change was down to 11.3 percent (less than the inflation rate for the same period). As Australia's inflation is widely considered to be a wage-push phenomenon, many observers saw in this the prospect of a basic improvement in the price situation.

But these hopes were set back in February when, over government opposition and under indexation guidelines previously instituted, the Arbitration Commission awarded a full 6.4 percent National Wage increase based on the movement of the CPI during the previous two quarters. This, along with a surge in the food price index during recent months, has caused concern about a possible resurgence in Australia's already high inflation rate.

As measured by changes in the Consumer Price Index, Australia's inflation rate eased briefly during the last half of 1975. The CPI rose only 0.8 percent in the July-September quarter, bringing the change from a year earlier down to 12.1 percent, the lowest 12-month figure in at least two years. But this was mainly the result of decreases in the price of health services following the introduction of a national health insurance system. In the following quarter the CPI rebounded to a figure of 5.6 percent, the largest quarterly rise since 1951, to bring the 12-month actual rate to 14.0 percent. Full CPI results for the first quarter of 1976 are not yet available but the monthly food price index, which contributes substantially to the overall CPI, jumped 3 percent in January and 1.6 percent in February. Any reduction in the inflation rate to single-digit figures in the current quarter and probably in the next year seems highly unlikely.

Ambiguous trends

Consumer confidence trends have been ambiguous. Consumer spending appeared to pick up in the last quarter of 1975, registering increases of $A6 million, $A21 million and $A19 million, respectively (seasonally adjusted and at current prices) during those three months. However, the trend has slowed more recently. Registrations of new automobiles, seasonally adjusted, declined for 1975 as a whole, totaling 0.6 percent less than in 1974. They showed a good increase in January, however, rising 3.8 percent over the previous month, and there are other indications that new car demand may be picking up quicker than expected.

Exports exceed imports

Australia's exports exceeded imports for 16 consecutive months to February. For the first eight months of the current financial year an export surplus of almost $A800 million has been recorded. Despite falling world demand and prices for some of Australia's major exports, others have performed buoyantly. Most recently, the value of coal and cereals exports has been high, while that of sugar, iron ore and, to some extent meat, has fallen. With the slow pace of the Australian economic revival, the gradual depreciation of the Australian dollar, and the effect of restraint measures, imports have held steady or increased only marginally from reduced levels. In recent months imports of petroleum, chemicals, iron and steel, clothing and footwear have increased while the value of electrical machinery imports is down.

An important factor in the Australian economic scene was the election on Dec. 13 of a Liberal/National Country Party (L/NCP) coalition government. Campaigning mainly on the issue of the state

DESTINED FOR AUSTRALIA—*The first part of a shipment of hearing aids is held by Richard Tatum, Vice-President for Marketing (left), and Hugh Cameron, President, Radiocar Corp., one of the oldest makers of hearing aids in the United States. The company received an order for 6,000 behind-the-ear units from Australia.*

of the economy, the coalition's leaders expressed the conviction that recovery should be an investment-led process. An investment allowance would be instituted and constraints on business profitability, including the Prices Justification Tribunal, were to be removed. Australian industry would receive "adequate protection" from imports. And inflation would be contained by reducing the budget deficit and reversing the growth of the public sector.

But during its first days in office there was extensive public debate respecting the new government's policy intentions. The debate turned on the questions of whether an investment-led upturn could take place without a revival in consumer confidence as a basis for new investment, and the possible effects which the government's emphasis on business profitability might have on labor's support for wage restraint measures.

Taking aim at inflation

The government's actions to date suggest that its policy has taken these concerns into account—the most significant steps have focused less on the problem of investment stimulation than on inflation. In late January the Treasurer announced monetary measures aimed at mopping up excess liquidity. Government expenditures have been pruned and a ceiling on Commonwealth Government employment imposed. The intention to abolish the Prices Justification Tribunal is under review, following representations from the labor movement, and its implementation indefinitely delayed.

Earlier expectations of a more protectionist import and tariff policy line have yet to be borne out by actions. At the most, only interim extensions of existing quotas have been announced and in one case—steel plates—quotas have been discontinued. But at the same time investment stimulation has not been overlooked. A 40 percent investment allowance went into effect on Jan. 1, to continue until June 30, 1978, when it will operate for two further years at 20 percent.

The impact of the recent change of government on Australia's economy, and the significance in turn of this economic impact for U.S. economic and commercial interests, should not be overstated. But the new government's commitment to strengthening the private enterprise sector in Australia will probably result in gradual improvement in the business climate to the mutual advantage of U.S. investors and exporters and their Australian counterparts.

The guidelines on foreign investment remain very popular to those promulgated by the previous government last September. The new government's policy statement, released April 4, calls for continued emphasis on the long-term objective of maximum Australian ownership and control of the economy. But these guidelines will probably be implemented with greater flexibility than in the 1973-75 period. In particular, the new government can be expected to place high priority on Australian growth and development, including the expeditious development of Australian mineral resources and exports.

In those cases, accordingly, where projects of economic importance have genuine difficulty in meeting the guidelines for Australian ownership and control, it seems probable that there will be an increased willingness to make pragmatic exceptions to the ownership policies for reasonable periods of time in order to enable the projects in question to proceed in an orderly fashion.

Australian import and tariff policy is likely to be at least as protective as it was during the last year (1975) of the previous government's tenure, and distinctly more protective than during the 1973-74 import liberalization phase. The new government has displayed considerable moderation to date in this area but it is reasonable to assume that it would not hesitate to come to the aid of Australian domestic manufacturing industries which experienced serious difficulties, particularly if significant unemployment is threatened.

Outlook depends on recovery pace

In practice, the Australian outlook for foreign exporters and investors during the coming year will be conditioned more directly by the course of economic recovery than by Australian Government policies as such. Notwithstanding existing import restraints, U.S. exporters of good quality consumer goods should continue to benefit from the continuing high level of Australian import demand, and eventually from the increases in consumer demand which will occur when the domestic economy begins to recover. Moreover, as capital investment revives, the 40 percent investment allowance instituted by the new government should benefit U.S. sellers of capital goods.

U.S. Government trade promotion efforts currently are concentrated on five product areas: printing and graphic arts equipment, agricultural equipment, metalworking and finishing machinery, biomedical equipment and industrial and scientific instruments. Other categories which have been identified as good future prospects for increased sales include computers and peripheral equipment, communications equipment, business machines, materials handling equipment, electronic components, pollution control equipment, food processing and packaging equipment, consumer goods and others.

Philippines Is Becoming A Favored Destination For American Business

The Philippines is becoming a favored destination in East Asia for U.S. business, reports Samuel S. H. Lee, Commercial Officer at the U.S. Embassy in Manila. American firms are being attracted by the many export opportunities the country offers and its prime location as a site for regional marketing or manufacturing facilities.

The Philippine Government is aggressively pursuing a program of infrastructure development. It has enlisted the assistance of the World Bank and the Asian Development Bank in financing important projects in transportation (roads, railway and shipping), ports and harbors, airports, power, and agricultural development (dams and irrigation projects). Other international financing also plays a significant role. For example, the U.S. Eximbank has agreed to participate in the $1.2 billion nuclear power project being undertaken by Westinghouse.

The nuclear power project is considered the top priority major project by the government. Other priority major projects are a copper smelter, a superphosphates fertilizer plant (in coordination with ASEAN), an integrated iron and steel complex, and petrochemicals. These projects would require considerable amounts of capital as well as engineering expertise and sophisticated equipment and machinery.

The private sector is also proceeding with major projects, mostly in tourism and in the development of natural resources. The program of building a dozen major new hotels will be completed in 1977, but equipping and furnishing the hotels will be a continuing need. In natural resources, the most promising projects are the opening up of new copper ore bodies by Atlas, Benguet Consolidated, and CDCP Mining. Above all, the oil exploration companies have been increasing their drilling efforts since the first Palawan strike early this year.

Indicative of the feverish pace of development has been the need to import essential machinery and raw materials. Imports doubled from $1,597 million in 1973 to $3,143 million in 1974—with the U.S. share rising from $450 million to $731 million. Philippine exports increased at a slower rate (48 percent) and actually fell in 1975 because of the recession in its major markets in the United States and Japan. However, imports rose by 10 percent in 1975 and the U.S. share went up slightly to $454 million—attesting to the strong demand for capital goods which the developmental activities were generating.

Major U.S. exports are machinery other than electrical, $198 million; transport equipment, $71 million; cereals and cereal preparations, $58 million; electric machinery, $56 million; textile fibers, $43 million; chemical elements and compounds, $39 million; explosives and miscellaneous chemical products, $35 million; and base metals, $16.4 million.

The infrastructure program and the rapid industrialization of the country have generated requirements for earthmoving and construction equipment, metalworking and finishing equipment, logging and wood processing equipment, and materials handling equipment. Heavy demand should develop for wood processing equipment in the next few years as the Philippines moves toward implementation of its "log export ban" policy in order to hasten processing of wood in the country. According to one private estimate, some $800 million would be required for a full conversion of the forest industry to wood products. A U.S. timber industries trade show is therefore scheduled for March 1977.

For those firms interested in locating in East Asia, the Philippines offers numerous advantages — a common language in English, available skilled workers at very reasonable wage rates, and a shared heritage of doing business the American way. A recent Stanford Research Institute meeting on the Philippines concluded that the investment climate is favorable. The Philippine Government has offered many incentives to multinational companies for locating their regional offices in Manila.

Responsive Firms Can Get More Business In Ghana

The performance of Ghana's economy continues to be erratic, reports A. Lester Glad, Commercial Attache at the U.S. Embassy in Accra.

The increase in the cost of petroleum, all of which is imported, has intensified inflationary pressures. The February government cost of living index for urban areas shows an increase of 53 percent from a year earlier.

Legislation to increase Ghanaian participation in foreign-owned enterprises, effective July 1, establishes ground rules for the purchase of shares of foreign companies by the government and private individuals and firms. Uncertainty about implementation of the law has created a wait-and-see attitude on the part of foreign investors and promises to increase claims on Ghana's already limited foreign exchange receipts.

Improved trade position?

On the brighter side, in 1975 Ghana experienced a modest trade account surplus which may mark the beginning of an improved trade position. Imports are still tightly controlled and many non-essential goods are prohibited. The price of Ghana's main export, cocoa, has remained relatively high and the outlook for the current crop is good.

The World Bank and the U.S. Agency for International Development and other bilateral donors are helping to finance several development projects which require imports of capital goods. The World Bank is financing projects to rehabilitate and increase the production of cocoa. The World Bank and others are also supporting projects for expanding sugar cane and oil palm cultivation. There is widespread interest in expanding cotton production. The U.S. AID program is directed toward improving small farmer operations and increasing their food production. These projects and those of other bilateral donors should stimulate demand for agricultural inputs such as fertilizer and insecticides, as well as agricultural machinery and implements. The government also has an ongoing program with external support for building and improving rural feeder roads, which should continue to require imports of roadbuilding machinery and equipment.

The largest single development project coming up soon is the Kpong Dam, to be built on the Volta River, just below the Akosombo Dam. Although financing for Kpong has yet to be finalized, the government is moving ahead with plans to build this project, which is estimated to cost $250 million (of which about $180 million is in foreign exchange). The project will create opportunities for U.S. engineering firms as well as manufacturers of a wide range of heavy construction equipment. American suppliers of engineering services should also explore opportunities for expanding Ghana's only petroleum refinery in Tema and modernizing the country's telecommunications system.

Ghana's mining sector has long been important and gold, manganese, diamonds and bauxite are exported. The government now controls mining firms operating there and is exploring the modernization of some mines. U.S. manufacturers of mining equipment and machinery should investigate sales potentials in this field.

Timber and wood products are also key foreign exchange earners, accounting for 11.6 percent of Ghana's exports in 1974. The government is encouraging more local timber processing (especially knocked-down furniture components), which should create opportunities for U.S. manufacturers of sawmill and other wood processing equipment. Indeed, the government is considering banning the export of "round logs" (unprocessed timber).

In recent years the United States has been in second or third place among Ghana's suppliers. In the first half of 1975 the United States moved into first place, accounting for 15 percent of Ghana's imports. AID's financing of commodities, mostly capital goods and agricultural inputs, should continue to boost U.S. sales there. American suppliers might obtain more of this business if they were more responsive to Ghanaian bid invitations.

Ghana has strong traditional ties with the United Kingdom, and other European countries, notably West Germany, are well represented in the local market. U.S. firms will have to overcome the Ghanaian tendency to think European when placing import orders.

Finding a suitable local representative can also be a problem, as most of the established trading firms have links with European competitors. American exporters must find serious, aggressive local representatives. Maintenance and service can be an important selling point and American firms must provide basic equipment and training for local service personnel.

GHANA'S OTHER HARBOR—*In addition to Tema, there is another harbor at Takoradi in the country's western region, some 168 miles from Accra.*

U.S. IN STRONG POSITION TO SUPPLY NICARAGUA'S GROWING IMPORT NEEDS

"Few American businessmen realize how attractive a market Nicaragua is. Nicaragua imports much more than would normally be expected for a country of its size, it is only two hours from Miami, and Americans are actually liked."

These were the words of one of the members of a trade mission from Florida that visited Nicaragua last January. Indeed, although Nicaragua's gross domestic product was only $1.6 billion in 1975, imports exceeded $500 million. And American firms are in a strong position to supply a major portion of these imports, advises Hendrik van den Berg, Commercial Officer at the U.S. Embassy in Managua.

Excluding protected imports from the other Central American Common Market countries and petroleum imports from Venezuela, almost an even 50 percent of the remaining imports came from the United States in 1975. The proximity of the United States, the convenient transport services, the well-established commercial relations between the two countries, and the excellent reputation and respect enjoyed by U.S. firms and their products make Nicaragua a lucrative market which should not be overlooked.

Based on its excellent agricultural potential, the Nicaraguan economy has experienced very healthy growth of about 5 percent annually in real terms over the past decade. In 1974, as a result of good agricultural output and prices plus the Managua reconstruction boom, real growth reached 12 percent. Unfortunately, the 1975 world recession reached Nicaragua in the form of reduced demand for its agricultural exports, and real growth dropped to only 2 percent.

Imports grew at a rate exceeding the rate of overall economic growth in recent years. Since Nicaragua and its Common Market neighbors have developed only a limited industrial capacity, imports of all types of manufactured products, ranging from consumer durables and pharmaceuticals to machinery and motor vehicles, have had to be imported in even greater amounts.

Nicaragua's export earnings will reach a new high this year. Prices for the most important export crop, cotton, have improved substantially this year as compared with 1975. And, as every American coffee shopper knows, coffee prices have risen out of sight. Coffee is Nicaragua's second most important export, and export earnings for the 1975-76 crop and the upcoming 1976-77 crop should set new records. Earnings from meat and sugar exports also look very good.

These increases in export earnings should lead to a rate of overall economic growth of 6 or 7 percent in 1976. This healthy economic growth should in turn lead imports to approach their high 1974 levels. Thus, if U.S. exporters hold their traditional market share, the total f.o.b. value of imports from the United States will surpass $180 million this year. An increase in market share would, of course, expand U.S. sales even further.

Agriculture is the motor that drives the Nicaraguan economy, and 1976 has been an outstanding year for this crucial sector of the economy. Imports of fertilizers, insecticides, agricultural machinery, and equipment will no doubt reach record highs.

Fertilizer imports in 1974 exceeded $30 million in value. This total was swollen, however, by the large amount of stockpiling that took place as importers attempted to protect themselves from world shortages. As a consequence, imports fell to $22 million in 1975 as excessive supplies were worked off. This year should see $30 million surpassed easily, with little or no stockpiling taking place.

The same is true for chemical insecticides. Down to $18 million in 1975 from a high of $22 million in 1974, imports of chemical insecticides may approach $25 million in 1976.

High prices encourage production

The improving world prices for cotton and coffee will bring increased fertilizer and insecticide usage for those crops. In fact, coffee producers have never used much chemical fertilizers in the past, but this year's sky-high coffee prices will induce producers to squeeze every extra possible pound of coffee out of their existing trees. Cotton growers, already heavy fertilizer users, are expected to increase their acreage this coming planting season in response to strong cotton prices. Government programs to increase the production of basic crops such as beans, rice, and corn will only increase the demand for fertilizers and insecticides even further.

Local distributors and banks have reported very substantial increases recently in purchases of agricultural machinery and equipment. Imports of tractors, harvesters, plows, seeders, cultivators, etc. approached $5 million in 1975, and if recent sales levels continue throughout the year, which is a good possibility, 1976 imports could come close to $10 million. American suppliers of farm machinery are well represented in Nicaragua, and their market share should remain at the traditional 60-70 percent.

Export opportunities will also develop as new ambitious agricultural projects are undertaken. The 120,000 acre Tipitapa-Malacatoya irrigation project will convert a dry, grazing region into an intensive cotton, sorghum, corn and rice growing area. Substantial purchases of irrigation equipment will take place in early 1977, with purchases of agricultural machinery to follow.

Nicaragua is blessed with a low population density, and large undeveloped regions remain to be brought into agricultural production. Land-rich Nicaragua indeed finds itself in an enviable position in this shortage-prone world. The continued expansion of agricultural production in the future will offer an attractive market for American producers of all types of agriculture-related manufactured products.

Although it is common to hear from local construction industry leaders that "the construction boom is over," construction activity continues at a strong pace. Following the December 1972 earthquake that destroyed the capital city of Managua, gross private construction grew from a $20 million annual level (1972) to $85 million in 1974.

Private construction dropped to $75 million last year, and Nicaraguan Central Bank economists expect it to drop further to $65 million this year. Thus, the impression that "the boom is over". Gross public construction is growing rapidly, however, more than offsetting recent decreases in private construction. This trend toward increased public construction can be expected to continue, according to industry experts. When one includes public construction, the boom is far from over, and the gross value of construction should easily surpass $200 million this year, a substantial increase from the "boom" year of 1974 when construction activity totaled $170 million.

Some $70 million in public funds are to be spent on reconstruction in Managua over the next two years. Another $60 million will be spent on road projects in various parts of the country over the next three years. Several large hydroelectric projects are in the works as Nicaragua desperately tries to free itself from dependence upon imported oil. Construction on one 200-megawatt dam is expected to get under way in early 1977.

All in all, the market for U.S. construction and building equipment and materials will show some improvement over 1975. Total imports of equipment and materials in 1975 were $22 million. No one expects imports to come near the $41 million of 1974, when expanded construction activity required initial purchases of large amounts of capital equipment. Nicaragua's industry has also greatly increased its capacity to supply basic building materials such as cement, roofing, lumber, and flooring. However, changes in the mix of construction activity from private structures to infra-

structural projects will probably require substantial purchases of new machinery and equipment from abroad.

One important market that has been ignored, or at least has not received adequate attention from U.S. manufacturers, is that for motor vehicles. The local market is surprisingly large, and is expected to grow substantially in coming years.

Nicaragua depends almost entirely on road transportation. The railroad is in a state of decay and plays only a minor role in satisfying the country's transportation needs. Planned projects to upgrade the railroad and to build inland waterways are still many years from realization. In the meantime, decentralization of earthquake-prone Managua and numerous highway projects to open up vast underpopulated areas of the country will further increase the need for motor vehicles to transport people and cargo.

The total market for motor vehicles and auto parts and accessories exceeded US$36 million in 1975, including 4,500 passenger cars ($13 million), 2,000 pick-up trucks ($6 million), and 1,200 larger trucks ($8 million). And keep in mind that 1975 was a recession year. Sales in 1976 are well on the way toward exceeding the 1975 totals by perhaps as much as 20 percent.

U.S. manufacturers capture only about 30 percent of the passenger vehicle market in terms of dollar volume. Japanese manufacturers dominate the market for passenger cars and small trucks. Only in the category of large trucks with capacity of over two tons do U.S. makes capture a substantial portion (42 percent) of the market.

U.S. auto makers have not aggressively pushed their small cars in Nicaragua. This may be due to the fact that representatives of the major American manufacturers handle broad lines of automobiles not limited to American-made cars, and these dealers have been content to promote only the high-profit lines of large, luxurious U.S. automobiles. Only more aggressive marketing will allow American firms to recapture the market share that they have been giving up rather steadily to Japanese auto makers.

Another important market for American producers is health care products. Nicaragua imports virtually all manufactured health-related products, from X-ray machinery to vitamin pills. Such imports can only grow in years to come as Nicaragua works to upgrade its deficient health care facilities and services.

Several large hospital projects are under way. The 500-bed, $12.5 million Social Security Hospital in Managua will be under construction later this year. Another 200-bed general hospital is slated for 1977, and the 200-bed Children's Hospital will also be constructed in Managua in 1977. An $11 million hospital/medical school is now under construction in the regional city of Leon, and a large number of clinics and small hospitals are planned throughout the country. Imports of equipment for these new facilities should be in the millions of dollars.

DISCUSSING NICARAGUA'S COFFEE CROP—*The Commercial Officer of the U.S. Embassy in Managua and author of this article, Hendrik van den Berg, inspects some of this year's high-priced coffee beans with manager of an exporting firm.*

Imports of hospital equipment and instruments totaled only about $2 million in 1975. However, with purchases being made for the major hospital projects as well as for general upgrading of health care facilities, imports most likely will jump to $4 or $5 million annually by 1977. Virtually all equipment and instruments must be imported from outside the Central American region, and U.S. producers, who traditionally supplied up to 75 percent of such imports, should be able to improve on 1975's lackluster 40 percent market share.

Heavy competition in pharmaceuticals

Imports of pharmaceuticals and hospital supplies have been rising steadily over the past few years, reaching almost $25 million in 1975. U.S. exporters face very strong competition from Mexican, Swiss and West German producers, but in 1975 the United States led all other non-Central American exporters of pharmaceuticals. Guatemala, with its many subsidiaries of major pharmaceutical manufacturers and protected by the Central American Common Market tariffs, was actually the largest exporter to Nicaragua. If recent trends continue, van den Berg expects Nicaragua to import close to $30 million in pharmaceuticals this year, and U.S. producers to supply close to $5 million of this total.

Special trade opportunities exist for American firms in the area of franchising. There are few franchises currently operating in Nicaragua, but conditions favorable to their establishment are present. The prestige of American-type products and services, the recent proliferation of new shopping centers, and the lack of good, reliable service establishments such as short-order restaurants, automobile repair shops, laundromats, tourist services, etc. are factors favorable to the establishment of U.S. franchises. A recent promotion of franchising by the American Embassy in Nicaragua brought a rather favorable response from potential local franchisees.

Nicaragua offers a small but lucrative market for American exporters in many lines of products, not just in those lines described above. It is easy to pick out additional categories of products that sell well in Nicaragua, and which could be very competitively supplied by American producers. The market looks good for office equipment, packaging machinery, kitchen appliances, telephone equipment, sporting goods, bakery equipment, chemicals, digital watches, buses, windmills and sewing machines, among other manufactured products.

Large projects also present major export opportunities. The Nicaraguan Power and Light Company has two major projects under way: a 200-megawatt hydroelectric dam and the development of promising geothermal energy sources. It now also appears that a major program to upgrade the rail system will be initiated in the near future, and large purchases of equipment and materials will be made. Large container-handling facilities are still to be constructed as part of the $40 million expansion of Nicaragua's principal port, Corinto, and construction will begin in a matter of weeks on the Airport Free Trade Zone in Managua.

Madagascar's Socialist Goals Make Business Apprehensive, Keep Investment Level Down

Madagascar's new President has charted a "socialist road to development" for the world's fourth largest island (now officially termed the Democratic Republic of Madagascar, or Madagascar for short, in lieu of the old Malagasy Republic). In keeping with the government's socialist goals, a number of major enterprises have been nationalized since mid-1975, including banking. So far the pace of direct nationalizations has not been precipitous, most of commerce, industry and agriculture remaining in the private sector. But the government's program has caused apprehension in the business community.

Madagascar has registered little overall economic growth since the early 1970s, owing mainly to political and economic uncertainties and a low level of new investment. Nonetheless there are several bright spots in the economic picture, reports the U.S. Embassy in Tananarive.

The balance of payments is expected to show continued improvement from severe difficulties experienced in 1974-75. Tight controls on all "non-essential" imports, combined with high or record prices for key exports such as coffee and chromite, should enable Madagascar to maintain reserves at current levels of $65-70 million for the balance of 1976. Over the longer run, the main uncertainty in the outlook is the volume of rice imports that may be required. In 1975 the government projected a continuing decline in rice imports to the point of self-sufficiency in this basic commodity by 1977. Drought conditions in scattered regions of the south during early 1976, however, and continuing difficulties in operation of the government's nationalized system of wholesale rice distribution may require greater rice imports than anticipated this year. The government is now projecting self-sufficiency in food production no earlier than 1978.

The government's development program, relatively slack since the early 1970s, may begin to pick up steam, fueled in part by an expansionary national budget. The budget for 1976 anticipates a hefty 28 percent increase over the previous year's expenditures, substantially more than the rate of inflation (currently about 8 percent). Most of the increase is earmarked for development, with agriculture and public works slated to receive the lion's share of approximately $85 million budgeted for capital development this year.

New private investment is expected to remain low, the main cause being a high degree of uncertainty in the business community as to the eventual extent of direct government participation in the economy. Also, the current administration has not encouraged private foreign investment in Madagascar, and incentives in the Investment Code promulgated in 1973 have been inadequate to attract much interest.

The overall economic outlook for the rest of 1976 is continuation of most of the trends which characterized last year: little or no growth of gross domestic product, with strength in the export sector but a low level of new investment; general sufficiency in the balance of payments and foreign exchange reserves; and a slow but continuing enlargement of the state's role in the economy—all within a framework of accelerating social change and basic political stability.

Rich in human, natural resources

Madagascar, however, essentially is not a poor country. It enjoys vast areas of arable but uncultivated land (much of it in a temperate climate), a capable population of 9 million, and considerable mineral wealth in chromite, coal, ilmenite, bauxite, and iron (all but the first as yet unexploited). Over the longer run Madagascar has the potential to become a major exporter of foodstuffs, meat and fish products, and a variety of raw materials.

In recent years the U.S. share of the market in Madagascar has averaged about 6 percent, and the United States has ranked fourth or fifth among the country's foreign suppliers. Although exports from the United States to Madagascar in 1975 registered a decline to some $9 million, the export totals for the previous year had been inflated by an unusually large shipment of rice.

Because of the government's tightened new import controls, no growth is expected in the overall value or volume of imports during 1976. Two developments, however, could enable U.S. exporters to increase their market share relative to major competitors. The first is Madagascar's abolition of preferential tariffs of 5-10 percent formerly granted to all imports from the European Community. With the elimination of these discriminatory duties, effective since Jan. 1, U.S. products now enter Madagascar on an equal tariff basis with imports from all other countries. The other development which could contribute to a larger U.S. market share is a new policy of the government of Madagascar to diversify its foreign trade away from excessive dependence on traditional suppliers (principally France, which regularly has accounted for 40-50 percent of the country's imports). Moreover, U.S. exports have traditionally been concentrated in product lines such as capital goods and agricultural inputs, which should be the least affected by Madagascar's new import quota ceilings.

At present the most promising fields for U.S. exports to Madagascar include construction and mining equipment, agricultural equipment and supplies, forestry and woodworking equipment, and communications equipment. Madagascar also plans to do more of its own processing of agricultural products, and could become a promising market for food processing and packaging machinery. The market for U.S. consumer goods in Madagascar is virtually nil as a result of the new import constraints.

With the rapid enlargement of the government's role in the economy and its announced intention of progressively taking over most foreign trade, U.S. exporters are encouraged to pay particularly close attention to government agencies and development programs as potential markets. State agencies, for example, now account for over 80 percent of the market for agricultural equipment and supplies. The largest government import/export trading company, *Tranombarotra Roso*, has an experienced staff and is expanding its activities.

Of Madagascar's major development projects, a $22 million World Bank loan for road construction is expected to be signed this year. This loan should offer opportunities for U.S. engineering and construction firms, as well as manufacturers of roadbuilding equipment. Other major projects at an advanced stage of planning are the $100 million Rogez hydroelectric project and a ferro-chrome plant, both projected for construction in 1978-81.

To assist U.S. manufacturers of forestry and woodworking equipment in developing markets, the Department of Commerce will sponsor a Woodworking Catalog Show in Tananarive in January. This event will feature the product literature of U.S. manufacturers, supplemented by the presence of a U.S. technical expert.

Although U.S. products are increasingly price competitive and enjoy an excellent reputation in Madagascar, a special effort is often required to enter the local market. Correspondence and descriptive materials should be in French, if possible; metric measurements are much preferred; and quoting prices c.i.f. rather than f.o.b. can often help secure new sales. The availability of after-sale spare parts and service is a key factor in the Malagasy market, as is price. Manufacturers of light industrial machinery, such as food-processing and packaging machinery, will enhance their prospects of success if they can offer the sale of a complete plant on a turnkey basis, together with follow-up technical assist-

ance in operation. Malagasy buyers usually tend to prefer economical or simpler models of equipment rather than more sophisticated or larger ones.

An offer of credit may be essential in order to secure larger sales. Although no U.S. banks are represented in Madagascar, several American banks have extended credits to cover sales to Malagasy firms and State agencies in recent years, and the country reportedly enjoys a good credit rating.

The appointment of a local agent or distributor also is often essential in order to compete effectively. For one thing, government agencies in Madagascar prefer to purchase from foreign firms which are represented locally and which are therefore better able to provide spare parts and service. Additionally, local representatives are particularly important for responding quickly to government tender announcements. Most government tenders in recent years, including those open to international bidding, have gone to firms with at least an agent or representative in Madagascar.

Firms interested in possible investment in Madagascar should proceed only after careful investigation and discussions with appropriate government officials. No new investment agreements have been concluded in the past year which might serve as a guide to conditions acceptable to the government.

The value of U.S. investments in Madagascar is estimated at approximately $8 million, almost all of it in the oil-marketing facilities of two American oil companies. These investments do not include approximately $50 million spent by several U.S. firms for oil exploration since the late 1960s. Although no exploitable reserves of petroleum have yet been found, two U.S. companies share in exploration concessions.

Economic Slump In Belize Limits U.S. Opportunities

Belize is expecting a substantial decline in economic activity, largely because the windfall sugar earnings of 1974-75 will not be repeated this year. Production of major commodities has stagnated as a result of soaring input costs and adverse weather, adds the American Consulate General in the Central American country formerly called British Honduras.

Domestic commerce and industry still show growth from the infusion of sugar earnings, but Belizean workers are continuing their substantial migration to the United States. A record trade deficit and a weakening currency (which is tied to the pound) are expected to put pressure on Belize's balance of payments.

Belize recently adopted the CARICOM common external tariff, which eliminates special preferences for goods from Commonwealth countries outside CARICOM. Measures to peg the Belize dollar to either the U.S. dollar or to special drawing rights are under consideration. The change to either would make U.S. goods more competitive in Belize's $100 million plus import market by reducing the uncertainties of daily currency fluctuations.

The government's local revenues, tied in large part to the volume of imports and commercial activity, are barely sufficient to meet the rising costs of recurrent expenses and maintenance. Belize relies on external assistance (grants and soft loans) for virtually all public investment in development of both human and physical resources. The United Kingdom supplies most of Belize's bilateral aid, while the United States has provided substantial development capital (over $15 million) in soft loans through the Caribbean Development Bank, Belize's largest multilateral source of assistance. In recent years, only about half of the budgeted grants have actually been utilized due in part to lack of funds, manpower, machinery, spare parts or organization at critical times.

The government has stated its intent to encourage domestic and foreign investment likely to contribute to Belize's economic development and has established an investment promotion office in Belize City to help investors plan projects in conjunction with the government. Tax holidays of up to 15 years are possible under a Development Incentives Ordinance, but the history of smaller, private foreign investors in Belize has not been encouraging. Of almost 150 new ventures which have been granted development concessions in the past decade, less than a dozen are still operating. With few natural resources besides abundant land, water and a warm climate, Belize is a relatively high cost producer, even in mechanized agribusiness like sugar, citrus and rice. Larger companies with reserves sufficient to withstand initial years of losses seem to have the best chance of success.

The government has stated repeatedly that it has a "sacred duty to intervene in the economy where necessary for the good of the people" and that "Belizean resources and treasures will be harvested, controlled, and owned by Belizeans to serve Belize and Belizeans." This policy is carried out by a series of legislative acts, including the Alien Landholding Ordinance, which restricts a non-Belizean from holding land in excess of 10 rural acres or one-half urban acre without a development agreement and permit from the responsible Minister of government. Use of minerals or timber, export of goods produced in Belize, control of domestic prices and profit margins, and currency conversion are among those activities controlled by permits from various Ministers, who have wide discretionary powers generally exempt from court challenge. Compensation for land and property is based on prices prevailing two years prior to government acquisition and may be paid in ten-year bonds.

United States firms are eligible to bid on infrastructure development projects funded by Caribbean Development Bank loans. Planned improvements in storage and handling facilities should stimulate modest agribusiness growth, which would broaden the market for agricultural machinery and supplies. Fishing cooperatives are showing interest in equipment for fishing the deeper waters outside the extensive barrier reef as their catch in shallow coastal areas reaches natural regeneration limits.

Import substitution opportunities exist in established local markets for processed milk, meat and edible oils. Substantial reserves of secondary hardwoods might be used in making export quality plywood or panels. Offshore clothing assembly is promising due to the relative abundance of productive female workers easily trained to sew at wage rates comparable to the rest of the Caribbean area.

Tourist expansion offers unusually good opportunities to the U.S.-based promoter able to deliver package tours and groups to the underutilized and moderately priced small hotels at several intimate beach resorts and in Belize City. Belize has virtually untapped and unlimited scuba, snorkeling and sport fishing resources.

Calendar For World Traders

Aug. 23-27—New York—Seminar on Improving the Managerial Skills of the International Manager, American Management Associations.

Aug. 26-27—Los Angeles—Practising Law Institute's Seventh Annual Institute on International Taxation, Century Plaza Hotel. The same program will be presented Oct. 7-8 at the Americana Hotel in New York.

Aug. 31-Sept. 1—New York—Seminar on International Compensation and Related Personnel Practices, World Trade Institute.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and visists by foreign buyers and officials.

Licensing, Investment Abroad

GERMANY — Medium sized company seeks cooperative arrangement with U.S. manufacturer. Firm is importer, distributor of **jute bags.** Arrangement is sought preferably, but not necessarily, with textile producer. Company owns warehousing facilities consisting of 3,500 sq. meters of roofed space and 3,700 sq. meters of open-air space with railroad siding. Established 1926, firm employs 50, has sales area including EEC and EFTA countries. Ernst Schramm, "Sackschramm"-Friedrich Schramm & Co., Duesseldorfer Str. 379, 4100 Duisburg 1-Wanheimerort. (TX: 0855653). P-76533.

NIGERIA — Ogun State Ministry of Trade, Industries & Cooperatives desires technical and financial partners to establish following industries: **cement; cocoa; sugar; burnt bricks; stone aggregate; jute bags; glass/bottle; cassava starch and refractory bricks.** Interested investors should contact: Permanent Secretary, Ministry of Trade, Industries & Cooperatives, Abeokuta, Ogun State. P-76534. OPIC.

2000—BOLIVIA—Food processing technology sought on joint venture basis to produce **canned meats, canned fruits and canned vegetables.** Roberto Pena, Fabrica Nacional de Conservas "Dillman," Casilla 169, Cochabamba. Cable CONSERVAS. P-76535. OPIC.

2337, 2339 — MEXICO — Recently established firm desires patterns, styling, samples as well as technical assistance to manufacture **ladies and/or junior sportswear.** Morley Weiser, Director, Sportvil, S.A., Avena No. 513, Mexico City 8, D.F. Telephone: 657-0988. WTDR. P-76536.

2851—MEXICO—Seeks licenses to manufacture **water soluble paint** to be used for interiors and exteriors of homes and buildings. Founded in 1959, firm operates with authorized capital of $176,000 and presently manufactures bathing suits. Wishes to build new plant to produce paint. Victor Miklos, Mgr., Marsol S.A., Nino Perdido 61-201, Esq. Dr. Lavista, Mexico 7, D.F. WTDR. P-76537.

2869—HONDURAS—Partner sought to supply technical know-how and up to 49 percent of capital in project to build **vegetable tannin extract plant.** Vegetable tannin will be produced from mangrove trees in southern area of country and proposed marketing area includes Central America, Mexico, and U.S. Estimated production, 3,000 to 6,000 tons per year; cost projected at about $5 million. Marco Aurelio Jerezano, COHDEFOR, Aptdo. Postal 1378, Tegucigalpa, D.C. WTDR. P-76538.

2899, 2891—GERMANY—Seeks licenses to manufacture **fire retardant chemicals, protective agents for construction industry, propellants,** etc. Established 1824, firm employs 350, has foreign subsidiaries; is important manufacturer of detergents, scouring compounds, specialty cleaning preparations, etc. H. Krauss, Chemische Werke Muenchen Otto Baerlocher GmbH, Riesstrasse 16, D-8000 Muenchen 50. WTDR. P-76539.

3079 — UNITED KINGDOM — Seeks licenses to **manufacture PVC items** by various techniques. Firm produces PVC quilting and carries out high frequency welding of PVC and other materials, especially for furniture, stationery and swimming pool markets. Will soon enter vacuum-forming market. Company wishes to manufacture products allied to its main activities under license arrangements; claims to have good connections with do-it-yourself market. Established 1974, has 10 employees, annual turnover of $250,000; and sells to European market. J. K. Dewar, Mng. Dir., Plantgrove Ltd., The Drove, Castlefields, Bridgewater, Somerset ta6 4BB, England. P-76540.

3231, 3999—SWEDEN—Firm seeks joint venture to produce **screen printed decorative mirrors and/or screen printed metal and wooden plaques.** Established 1967, firm manufactures posters, wall decorations, games, toys and furniture. Write: Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76541.

3369—INDIA—Seeks technical know-how to manufacture **specialty castings of plain carbon and low alloy steels, high alloy steel, high nickel alloy, high nickel cast iron, Ni-hard and other wear resistant metals of radiographic quality.** These castings will be used mainly for manufacture of pumps and valves. Technology should include operation of different types of furnaces, melting techniques, testing including radiography, repair by welding, and heat treatment. Firm is a leading Indian producer of farm equipment, pumps, valves, machine tools and refrigeration compressors. It is controlled by Kirloskar Group of Poona, a large business complex with variety of interests. Dilip M. Sarwate, Kirloskar Brothers Ltd., Udyog Bhavan, Tilak Road, Poona 411 002. WTDR. P-76542. OPIC.

3400 — UNITED KINGDOM — Company, presently engaged in design, manufacture and erection of aluminum floating covers for oil storage tanks, seeks licensing arrangement to **fabricate steel, aluminum and other fine metals to oil, chemical, water treatment and food industries.** Firm also supplies varied fabrications in steel and aluminum, such as sludge scraping machines and aluminum reservoir covers, to chemical and water treatment industries. Established 1968, employs 10. P. A. Lee, Mng. Dir., Arpal Floating Covers Ltd., Players Industrial Estate, Clydach, Swansea, Glamorgan SA6 5BQ, England. P-76543.

3422, 3540, 2560 — AUSTRALIA — Small engineering and manufacturing company, which presently produces light hand operated tools, industrial and agricultural centrifugal sludge pumps, is interested in expanding its product range through licensing agreements. Company plans to move into areas allied to present scope of operation within **agricultural, light industrial and recreational fields.** Firm has established distribution network and excellent industrial contacts. M. R. Reeve, Gen. Mgr., B. R. Reeve Engineering, 62 Whiteman St., South Melbourne, Victoria, 3205. WTDR. P-76561.

3499—NETHERLANDS—Seeks licenses to manufacture **aluminum do-it-yourself products and aluminum items for leisure time activities** ranging in value from one half to $4 million annually. Firm is manufacturer of aluminum packaging foils, aluminum castings and specialty alloy castings. Is associated with Billiton International Metals BV and Hoogovens Ijmuiden BV Foundries Group. R. J. Van Der Burg, Mktng. Mgr., Aluminum Industrie Vaassen BV, Dorpsstraat 88, P.O. Box 2, Vaassen, Gelderland. P-76544.

3540—GERMANY—Small manufacturer and distributor of **metalworking machinery** is interested in expanding its product line. Seeks licenses to make **boring, drilling, grinding, gear cutting and finishing machines.** Firm employs 25, has good connections with metalworking industries. Herr Krahe, Diederen & Krahe Maschinenbau, Werther-Strasse, 5190 Stolberg-Mausbach. P-76545.

3559 — GERMANY — Seeks licenses to manufacture **machines and equipment used in production of filters and metal rolls used extensively in paper producing industry.** Company produces and distributes wire cloth. Employs 450; has branch sales offices throughout Europe. Franz Kufferath, Pres., Andreas Kufferath KG, Lanessenstrasse, 5160 Dueren-Mariaweiler. P-76546.

3569—JAPAN—Leading manufacturer of water and sewage treatment equipment seeks license. Wants to obtain advanced technology to produce **refuse treatment systems, including refuse transportation equipment of air, tubing and/or conveyors.** Firm employs 1,200; maintains sales offices in major cities; exports to southeast Asia, other areas; has licensing agreements with several foreign firms. Kikuo Nasu, Dep. Mgr., Sales Headquarters, Ehara-Infilco Co., Ltd., Palaceside Bldg., 1-1, Hitotsubashi 1-chome, Chiyoda-ku, Tokyo 100. P-76547.

3569—SWITZERLAND—Desires to man-

ufacture under license in Switzerland, **time recorders (it can meet MIL specifications); electronic components and accessories; electromechanical apparatus.** Firm would prefer not being entrusted with sales of the licensed equipment in Europe. Company was established in 1874 as manfactory of watches and other time pieces; has reoriented its activities to toolmaking and precision mechanical working. Presently produces digital time recorders, micromotors, electromechanical apparatus and relays. Also acts as subcontractor for number of Swiss manufacturers of original precision instrumentation. Eric Zutter, Mng. Dir., Manufacture de Montres National SA, rue A.M. Piaget 71 2300 La Chaus-de-Fonds. P-76548.

3569—UNITED KINGDOM—Small manufacturer of **automatic liquid sampling equipment and dissolved oxygen meters** plans to expand its product line. Seeks to produce and distribute similar equipment under license. Is particularly interested in cross licensing and marketing agreements with U.S. firms. British concern claims to have good contacts in water industry; also exports to several areas. C. H. Vessey Gen. Mgr., Automatic Liquid Samplers Ltd., Unit 11, Block 5, Bordon Trading Estate, Oakhanger Road, Bordon, Whitehill, Hants GU35 9HH, England. P-76549.

3589—FRANCE—Firm seeks license to manufacture **water purification and waste water treatment equipment.** Specializes in engineering services in nuclear, chemical and glassware industries. Has good technical and commercial reputation, employs 410; is subsidiary of large Saint-Gobain—Pont-a-Mousson company. C. Camilleri, Mgr., Societe Saint-Gobain Techniques Nouvelles, 23, Blvd. Georges Clemenceau, 92400 Courbevoie. WTDR. P-76550.

600—GERMANY—A leading manufacturer of automotive and aircraft panel instruments seeks licenses. Wants to produce: **pressure and differential pressure transmitters with electric output; electric/pneumatic and pneumatic/transducers; valve positioners for control valves; and special recording, indicating and measuring instruments for process control application in food, chemical, pharmaceutical, paper and energy distribution industries.** Established 1921, this large company employs over 7,000. Gerhard Femppel, VDO Adolf Schindling A.G, 6231 Schwalbach, Sodener Str. 9. P-76558.

621—GERMANY—Seeks cross licensing arrangements for **specialized electric generators.** Is interested in exchanging technology for production of **motor driven, alternating current electric generators** for building and construction industry. Company manufactures motor driven generators and welding sets; employs 30, has ten independent sales offices throughout West Germany; maintains its own service and repair facilities. Bernhard Kirsch, Kirsch GmbH, Biewerer Strasse 193, 5500 Trier-Biewer. P-76551.

622—KOREA—Seeks license to manufacture **remote controls for power supply systems** for use in electric power plants, substations and industrial facilities. Firm produces remote controls for railroad signals; also manufactures telephone sets, radio communications equipment, transceivers and other electronic components for domestic and export markets. Established 1953, employs 2,200. Sung-Jeon Park, Dep. Mgr., Oriental Precision Co., Ltd., CPO Box 1301, Seoul 100. Cable; PRECISION, Seoul; telex, ORANGE K27335; telephone, 55-6730/56. P-76552. OPIC.

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

3623—GERMANY—Seeks cross licenses for production of **electric welding equipment.** Firm makes electric generators, electric welding sets. Maintains own service and repair facilities. Has 180 employees, markets throughout West Germany. Bernhard Kirsch, Kirsch GmbH, Biewerer Strasse 193, 550 Trier-Biewer. P-76553.

3634—GERMANY—Firm wants to purchase complete **miniaturized "sparking units" for electronic lighters.** With output voltage of 8 kv. at spark gap of 2.6 mm., these units should operate on customary 1.5 v. batteries or 2.8 v. lithium batteries. Dimensions, excluding battery, should be 14 x 14 x 50 mm. Firm needs between 60,000 and 100,000 of these units a year. Is important manufacturer of pocket and table lighters. Company believes such a unit, once developed, could also find market with other lighter companies. Representative of the concern plans to visit U.S. in September to discuss proposal with interested American firms. Sandor Potak, Tech. Mgr., Ibelo Metallwarenfabrik Hermann Zahn KG, Postfach 40, 8751 Sulzabach/Main. P-76557.

3670 — SOUTH AFRICA — Manufacturer of specialized **electronic equipment** seeks licenses. Product interests include **electronic power supplies for scientific purposes, thermostatic controlled soldering equipment and industrial and scientific instrumentation.** Company seeks arrangements with smaller American producers. Presently, the concern makes industrial instrumentation, PABX and telephone systems, all on contracts to large corporations; designs most of its equipment for municipalities, government bodies, mining and telecommunications markets. Company is located in light industrial area about 10 miles from Johannesburg. D. T. Norrish, Mng. Dir., Sunrise Electronice (Pty) Ltd., P.O. Box 39374, Bramley 2018. Telephone: 011-40-5312. WTDR. P-76554.

3694 — PHILIPPINES — Marketing corporation seeks joint venture and/or licensing agreement to manufacture **automotive spark plugs.** Prospective U.S. partner will be asked to provide plant design, machinery and equipment specifications and procurement, technical expertise and, if it chooses, up to 42 percent equity participation. Exports will be emphasized to obtain government incentives, with at least 70 percent of production allocated for international market. Ernest L. Chua, Pres., ELC Marketing Corp., Room 217, Federation Center Bldg., Muelle De Binondo, Binondo, Manila. P-76555. OPIC.

3713 — MEXICO — Medium size firm **assembling buses and trailer trucks** is interested in joint venture to expand its operations. Established 1954. Pedro Perez Del Razo, Dir. Gen., Carrocerias y Omnibuses, S.A., Av. Mexico-Puebla No., 3529 Prolongacion Av. Reforma, Puebla, Puebla. Telephone: 41-75-17. P-76556.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2248), referring to the appropriate file number.

AUSTRIA—Firm is interested in making licensing arrangements concerning technology for production of machinery and equipment in following categories: gas production; gas processing equipment; disposal equipment; garbage incineration plants; materials handling equipment; construction machinery; bottle cleaning equipment; machine parts in general; and machinery and fittings of glass fiber, reinforced plastic materials. Firm would also be interested in establishing joint-venture operation in Austria as well as in U.S. File 3072

FRANCE—Firm seeks arrangement on licensing basis with American firm for manufacture and sale in U.S. of **refractory materials, molds and chemical compounds** used in the casting, molding and finishing of steel and steel alloys. File 3047

FRANCE—Firm offers for license recently patented **new circuit breaker** which has unusually attractive features which emphasize safety. File 3048

GERMANY—Established firm that manufactures and distributes **bedspreads, sheets, covers, blankets, pillows and pillowcases** offers joint/venture arrangement with U.S. firm. File 3049

GERMANY—A leading manufacturer of **submersible waste water pumps** is interested in establishing plant for manufacture of its products in U.S. Type of investment is open to discussion. File 3050

GERMANY—Manufacturer of swimming pool pumps, fountain pumps, all-purpose

pumps and construction pumps, is interested in establishing manufacturing facility in U.S. Form of investment is open to discussion. File 3051

GERMANY — Engineering firm seeks partnership or joint/venture with American firm to design and engineer various types of **equipment used in rolling mills, paper mills and machine tool plants.** Optimum scale of U.S. partner would be medium size firm, with staff of about 50 and annual sales of around $10 million. File 3052

GERMANY—Engineering firm offers its licenses and technology for production in U.S. of following industrial specialties: **continuous band and water filters for industrial waste water treatment**; and **devices for use in rolling mills and machine tool plants.** File 3053

GERMANY—Firm offers licensing or joint/venture arrangement for manufacture of **traffic lighting systems.** These are non-stationary, traffic approach systems for on-line or battery operation. Systems include fixtures, regulators, transformers, beacons, wind tees and cones. File 3054

GERMANY—Established firm is interested in finding U.S. manufacturer to manufacture under license its **custom-made cross band and measuring bands of stainless spring steel.** Firm now sells its spring steel on a worldwide basis. File 3055

GERMANY—Firm that manufactures water testing equipment is seeking U.S. licensee for three of its new products used in testing potable well water: **submerged camera system** for photographing horizontal and vertical wells; **flow meter** measuring flow and velocity of water in wells; **step probe for selective water sampling** from vertical wells. File 3056

GERMANY—Firm offers for production under license in U.S. **pipe joint** for connection to welded pipes on either end. Joint is for operating pressures up to 100 atmg's. Very old and well-established, firm is engaged in construction, production and mounting of pipe joints and other steel constructions. File 3057

GERMANY—Well-established firm offers patent rights for a **special shrub fruit**—a cross between a black currant and a gooseberry—termed Josta (registered trademark), for U.S. firms on licensing basis. The shrub reportedly is insensitive to diseases and brings good crops after only one year, is robust and grows between 25° and 45° latitude. Firm is looking for licensees that would include mail order houses, nurseries, etc. U.S. licensees would be permitted to sub-license nationwide. File 3058

NETHERLANDS—Large group of Dutch businessmen is interested in arranging for cooperation on joint/venture basis, investments on both sides of ocean, particularly in **technologically sophisticated products** in electro-mechanical, special materials, polyurethane manufacturing machinery and systems, and in other sectors. Form of investments to be discussed. File 3059

NORWAY—**Shoe manufacturing** company, now exporting to U.S., is interested in possibility of manufacturing in U.S. Form of investment could be that of joint venture. File 3060

SWITZERLAND—Inventor offers manufacturing under license of novel type of **industrial metal melting furnace** that uses several types of high frequency circuits incorporating liquid fuel molecular accelerator (sub-atomic), for application with all types of metal (ferrous and non-ferrous), thus making its efficiency and capacity outstanding at low operational cost. Furnace, reportedly, can be built in any size and capacity. File 3061

SWITZERLAND — Reputable manufacturer and representative of metal-working machine tools, dies and metal accessories, seeks to complete its manufacturing and sales program by licensing agreement for items in following fields: **clamping tools, chucking tools, holding fixtures, and other accessories** for machine tools, automatic loading arms, hydraulic parts, and other advanced technology which can be used in connection with automatic machine tools. File 3062

SWITZERLAND—Small but highly specialized Swiss manufacturer of industrial diamonds, diamond tools, needles, is looking for U.S. licensee to manufacture **diamond discs for industrial use and quartz crystals** for electronic applications including use in digital watches. File 3063

SWITZERLAND—Established small to medium-size firm, highly specialized in household insecticides and repellants, offers for production under license and distribution in U.S. its **insecticides and repellants**—presently among the market leaders in Switzerland. File 3064

SWITZERLAND—Firm is looking for U.S. licensee to manufacture its line of **pole vaulting, high jumping landing pits.** Preferred U.S. firm would be manufacturer and distributor of sportsground and playground equipment. File 3065

SWITZERLAND—Established firm offers for manufacture under license and distribution in U.S. **novelty plastic showcase used as greenhouse** to grow tropical plants in hotel halls, shopping malls, offices, and for similar decoration purposes. File 3066

SWITZERLAND—Firm offers for licensing in U.S. novel **bar stacking machine** for use in metal strip and bar storing. System has been developed to facilitate handling and storing of heavy metal rods, bars, strips, and similar shapes used in building industry trade. Part of equipment is storage cradles which serve as containers for stored metals. Machine operates between racks which support cradles; it travels on rails. File 3067

SWITZERLAND—Old established firm specializing in air-conditioning equipment offers for license in U.S. its line of new modular, frameless, **air-conditioning units** for universal application. They can be built together for almost any variations in size and uses, including residential, industrial, commercial and even mobile. File 3068

UNITED KINGDOM—Manufacturer of **automatic liquid sampling equipment and dissolved oxygen meters** wishes to expand its range by manufacturing under license similar equipment from a U.S. manufacturer. Firm wishes to have reciprocal arrangement for manufacturing its products in U.S. File 3069

UNITED KINGDOM—Manufacturer of patented horticultural stain remover for hands and clothing called Tomay, sold in U.K. for over 25 years, wishes to have product manufactured and distributed under license by company in U.S. File 3070

UNITED KINGDOM—Firm has designed and is manufacturing its **mini-garden unit** in U.K. and Europe; wishes to make licensing arrangements for same product to be made in U.S. Mini-garden consists of slim bar to which three removable brackets are fitted which hold the boxes themselves. Unit may be positioned indoors or outdoors, is suitable for growing food and/or flowers. Product is patented. File 3071

U.K. Region Offers Investment Assistance

England's first regional new town, Central Lancashire, in the Northwest, has available seven major employment centers strategically placed to take full advantage of its excellent location in the national communications network.

Central Lancashire has a work force of 120,000 with a tradition of good labor relations. A skilled labor force is available for mechanical engineering, electrical engineering, electronics, chemicals, machine tools, distributive trades, food, drink and tobacco, leisure industries, clothing and textiles.

Central Lancashire has direct access to Britain's motorway network linking the major commercial and industrial markets from London in the south to Glasgow in the north. It is on the Inter-City rail system running from London to Glasgow. The area has access to the Port of Preston with roll on/roll off and lift on/lift off container service. Ports of Liverpool and Manchester are an hour's run by motorway. Manchester International Airport, with scheduled passenger service and freight, is linked to the major European cities and to North America.

Fully serviced leasehold sites are available in a range of units from 3,000 to 20,000 sq. ft. with expansion possible as needed. The corporation can offer advice on all design and technical matters, assistance with planning procedures, and information about Intermediate Area Grants, available from the Department of Industry.

For further information, contact William Taylor, V. Pres. of Marketing, Arthur Sworn Goldman & Associates Inc., 104 E. 40th St., New York, N.Y. 10016; telephone, 212-697-7820. P-76559.

Guide Issued For Doing Business In Brazil

A new publication, "Executive Guide to Conducting Business in Brazil," by F. T. Haner, has been published by the Business Environment Risk Index (BERI). The guide is one of a series issued by the BERI group as a part of its effort to rate the business climate in various nations around the world for the foreign investor. The guides may be purchased for $75 by subscribers and $175 for non-subscribers to the BERI Index. In addition to the new guide on Brazil, the series includes guides on Canada and Iran.

BERI is a service to companies with multinational operations, developed by Prof. Haner over the past ten years to provide an evaluation of the business climate in 45 countries. Among factors rated in the index, which is published three times a year, are political stability, economic growth, labor productivity, credit availability and bureaucratic delays.

Write BERI, P.O. Box 4697, Newark, Del. 19711; telephone 302-738-2555.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Dimension stone

411XXX — JAPAN — Granite, random block, to be used for gravestones. Pure black preferable. White also acceptable. Reports domestic annual demand for gravestone is estimated at $133 million in terms of raw stone. However, domestic resources have been almost exhausted. Foresees increasing demand for building use. Specializes in distributing imported ative stone. Annual sales $7 million; 21 mployees. Reply to—Mr. Go Yoshida, res., Tohoku Industry Co., Ltd., 5-51-8 ingumae, Shibuya-ku, Tokyo 150. Phone 3-407-3766. Direct sale and agency.

Chemical and fertilizer mineral mining

1471425—LIBYAN ARAB REPUBLIC—ndustrial Research Center invites bids or execution of aerial survey and mapping of the following zones: Jebel Sauah, Ghat, Jebel Addalmah and Jebel Alarroush El-Aswad. Tender documents nd specifications available from Industrial Research Center, P.O. Box 3633, ripoli. Tel: 40731, Telex: 20023. Offers ust be accompanied by initial guarane of one percent of total value of bid, nd certificates and documents showing revious experience in aerial survey, eophysical survey, and topography.

Building construction

15100, 16100, 16200—INDONESIA—ational Urban Development Corporaon (Perusahaan Umum Pembangunan erumahan Nasional), Jakarta Urban evelopment Project, Site and Service ousing Scheme, Klender (East Jakarta) ill receive applications for prequalificaon from interested national and interational contractors for construction of orks described below, expected to be ntracted in early 1977. They form part Jarkata Urban Development Project d involve provision of infrastructure r housing sites of approximately 8,000 ts on area of 130 hectares. To be funded IBRD loan. Descriptions of works and approximate quantities involved are as follows: I. major civil works: earthworks, 425,000 m3; main drainage canal, 32,000 m3; tertiary drainage canal, 6,500 m; water distribution pipes, reinforced concrete bridge, culverts and ancillary works. II. minor civil works and building works: secondary drainage canal, 1,500 m; tertiary drainage canal, 75,500 m; secondary roads, 43,000 m2; footpaths, 50,000 m2; water distribution pipes, footbridges, culverts, and ancillary works; and core houses, 6,500. Prequalification documents containing additional information on project (Tender No. 1/1/2/1/1) together with forms which must be completed by contractors may be obtained from IBRD Project Manager, Klender Project Office, Jalan Kramat Raya 15, Jakarta Pusat, Indonesia. Interested contractors must submit a written request for prequalification documents and notification of desire to participate in bidding process for Klender Site and Service Housing Scheme. Completed prequalification documents must be submitted by Aug. 9 at Board of Directors, Perumnas, Jalan Iskandarsyah 65-C, Kebayoran Baru, Jakarta Selatan, Indonesia (endorsed: Klender Project Prequalifications).

Heavy construction

● **16200—TURKEY**—Supply and erection of following: A. One oxygen plant of 40/60/M3/H gas oxygen capacity, 165 ATM pressure, and bottle charging plant for oxygen production by air compression; B. One acetylene production plant of 80/100 M3/H max. capacity, (continuous 40/60 M3/H), calcium carbide loading capacity of 200 Kg. Bid deadline Sept. 14. Submit bids to: Tedd Ismetsi Genel Mudurlugu, Merkez Alim Ve Satim Kosiyonu Baskanligi, Ankara (State Railways Administration). Procurement: IBRD. Option: 90 days. Delivery price to be quoted in tenders. Prices: f.o.b., c.i.f. Istanbul. Bidding specs. in English may be obtained for $8.50 from Modern Translation Bureau (MTB) at Karanfil Sokak 36/7, Yenisehir, Ankara. Make checks payable to MTB but forward bids only to buyer or U.S. firm's rep.

Water well drilling

● **17810—LIBYA**—Council of Agricultural Development is seeking firms interested in drilling of eight water wells at Al-Wedian Al-Usta, to depth of approximately 300 to 1300 meters, plus or minus 20 percent, with total of 6710 meters, plus or minus 20 percent. Financed by Libyan Government through a Libyan commercial bank. Specifications may be obtained, for LD 150 ($515), from: Council of Agricultural Development, Ibrahim Hafed Bldg., Omar Mukhtar St., P.O. Box 190, Tripoli. Offers must be accompanied by initial guarantee of LD 40,000 ($136,000) and certificate showing the company's background, experience, previously executed works and financial status. Please send copy of all correspondence to: Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C., 20230, 202-377-4441.

Sawmills, planing mills

● **242XXXX—MOROCCO** — Government requests bids on 5,000 aligned, parallel oak boards 45 mm x 200/250 mm x 2.65 to 3.0 meters long. Bid deadline Aug. 9. Contact Monsieur le Chef du Service Administration Division des Approvisionments. Construction and Forest Products Division, Department of Commerce, 202-377-3365, has copies of general bidding file, general conditions and technical specifications available upon request.

Millwork, veneer, plywood, prefab. structural wood products

● **243XXX—EGYPT** — Foreign Purchaser Committee, Timber Trading Company 1, SIT Misr St., Wardian, Alexandria, requests bids on 6,000 cubic meters of beechwood, 20,000 cubic meters of plywood, 2,000 cubic meters of hornbeam, 3,000 cubic meters of arrow wood, and 2,000 cubic meters of oak wood. Interested firms are urged to contact their agents to obtain tender documents and specifications from company's head office in Alexandria.

General commercial printing

2754235—GUYANA—Machine to print on polypropylene sack 4'-5" bold print. Call or write—Marvin Wray, Wray's Enterprise, 271 South Ruimveldt Gardens, Greater Georgetown. Tel. 02-71709.

Industrial chemicals

● **28190—KOREA**—Chemicals and oil for steel industry (Pohang Iron and Steel Co. Ltd.). Aluminum chloride ($AlCl_3$), 100 percent of weight, in powder form, 12,000 kilograms; sodium hydrogen sulfide ($NaHSO_3$), 30 percent, liquid, 10,000 liters; poly-electrolyte anion type, 3,600 kilograms; anti-rust oil, 111,300 liters; and rolling oil, 315,600 liters. Tenders to Office of Supply, Government of Korea, Seoul. Tender Inv. No. KFX-76099-P111, bid deadline July 20. Copies of full terms, packing, shipping and specification available from Chemicals and Rubber Program, Materials Division, OBRA, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3468.

Drugs

● **28310—TANZANIA** — Central Tender Board seeks bids on various vaccines in-

cluding measles, polio (Sabin), T.A.B., and yellow fever. Also anti-rabies. Tender Document No. 32. Closing date Aug. 20. Recommended that interested bidders study detailed descriptions and specifications and abide by terms and conditions of bidding. Copies of documents may be obtained from Room 2104, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2239.

• **28340—TANZANIA** — Central Tender Board seeks bids on pharmaceutical preparations including tetracyclini oral suspension; penicillin phenoxymethyl tablets and oral suspension; various injectable penicillins; aspirin, paracetamol, ascorbic acid, and chloroquine tablets. Tender documents No. 29 and 32. Closing date Aug. 27. Interested bidders are requested to adhere strictly to details of tenders. Copies of documents available from Room 2104, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2235.

Agricultural chemicals

• **28700—NIGERIA**—Calcium ammonium nitrate (26 percent), 7,000 metric tons; single superphosphate (20 percent), 7,000 metric tons. Delivery required at Gombe railhead between Dec. 1 and March 31. Tender number not available, bid deadline Aug. 16. Bids should be forwarded to Project Manager, Gombe Agricultural Project, P.M.B. 46, Gombe, Nigeria.

Fabricated rubber products

30693XX—GERMANY—Latex foam, ⅜ in. thick, 54 in. wide, heat resistant. Anticipated purchases: 3,000 meters/year. Financial ref. Dresdner Bank AG, 4030 Ratingen. Reply by fastest means to—Herr H. J. Behrend, Ing. Hans-Juergen Behrend Gmbh, Postfach 8122; Sperberweg 16, 4030 Ratingen 8 (Homberg). Tel: 02102-5919.

Pottery, related products

3262052—IVORY COAST — Kitchenware, household. General household articles for rack-type & counter sale in supermarket. Leading importer/distr. of frozen, canned & packaged foods & household products. Abdulla will travel to New York, Chicago & LA July 25-Aug. 9 to meet with potential suppliers of non-food items. Also seeks agent & freight consolidator in U.S. Reply ASAP to—Mohamed Abdulla, Dir., Ste. Ivoirienne Promotion de Supermarches, Imm. Nou-Al-Hayat, P.O. Box 20, 837, Abidjan. Telex NIF 716; tel. 22-88-17.

Rolling, drawing, extruding of nonferrous metals

• **33500—UNITED ARAB EMIRATES**—600 kilometers bare copper wire for overhead power line in various sizes; 20,000 600-volt insulators for overhead power line; 300 kilometers of 600-volt, PVC insulated single conductor wire in various sizes. Tender No. TI/PD/93-23-76; bid deadline Aug. 11. Water and Electricity Department, P.O. Box 219, Abu Dhabi. Tender documents available at above address at 1,500 dirhams, non-refundable.

• **3354056, 3569119—ALGERIA** — Supply of unknown quantities of equipment for production of baby diapers and sanitary napkins and supply of unknown quantities of wrapping machinery. Bid deadline Sept. 30. Tender documents available for $48.40 (200 DA) and may be obtained from State Cellulose Industries Monopoly, SONIC, Rampe Ali Hadad (ExZaatcha), El Mouradis, Algiers. Cables: Sonicel Alger. Telex: 52933. Phones: 663800 and PQ. Correspondence in French preferred. All specs. metric.

• **3357XXX, 3662XXX—TURKEY**—Denis Kuvvetleri Komutanligi, Ikmal Dairesi Baskanligi, Tedarik, Ankara, has issued tender for supply of 4,000 meters of submarine cable and ten sets shipboard radar. Bid deadline Aug. 2. Copy of specifications available from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara, for $10 for cable and $12.50 for radar.

Cutlery, hand tools, general hardware

3421XX — SINGAPORE — Cutlery, all types. Direct sales & agency. Estab. 1959. Importer & distr. of fashion wear, household & kitchen utensils & sundries. Bank ref: Hong Kong & Shanghai Banking Corp., Raffles Place Br., Singapore 1. Reply to—Michael Ong, Gen. Mgr., F. J. Benjamin & Sons (Pte) Ltd., 3rd Floor, Faber House, Orchard Rd., Singapore 9. Cable Benphil, Singapore; phone 2350-155.

Farm machinery

• **35230—SUDAN**—Bids are requested by Dr. Hassabo Suliman, Acting General Manager, Sudanese Kuwaiti Animal Production Co. Ltd. (SKAP), P.O. Box 2526, Khartoum, Cable: Inman, Khartoum, for following equipment: 366220—supply and installation of radio communication system; 355130—supply and installation of feed mill and mix equipment; 371120—supply of vehicles; and 352300—supply of farm machinery. Above equipment required for ranching project located about 70 kilometers south of Khartoum. Tender documents obtainable from company's office at 51 St. 33, Khartoum 2 or from ULG Consultants 22, Oxford St. Eddington, Hungerford/Berkshire, England, against non-refundable fees of LS.20,000 per set or its equivalent. Tenders should be accompanied by deposit of 2 percent of total value by certified check, money order, or letter of guarantee from recognized bank in Sudan to Sudanese Kuwaiti Animal Production Co. Ltd. Successful tenderers will be required to complete deposit to 10 percent. Closing date is Aug. 1.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Special industrial machinery

• **35550—ALGERIA** — Printing equipment; offset printing equipment; inline flexigraphic printing equipment; paper cutting machines; misc. equipment for manufacturing racks, staples, cardboard covers, folders, and hole punchers; equipment to manufacture notebooks, paper pads, envelopes and folders. Supply of above listed types of equipment for manufacturing school supplies. Bid deadline Sept. 30. Tender documents available for 200 DA ($48.34) from Monsieur le Directeur General, SONIC, Rampe Ali Haddad (Ex Zaatcha), El Mouradis, Algiers. Cables: Sonicel Alger. Telex: 52933. Phones: 66-38-00 and 01. Correspondence in French required. All specs. metric. Offer to remain valid 120 days past bid deadline.

• **35590—SRI LANKA**—Supply, according to specs., plant and equipment for processing 14 million cu. ft. of oxygen gas and 6 million cu. ft. of acetylene gas per year. Also supply of approx. 5,000 oxygen cylinders of capacity 220, 185, 165, and 110 cu. ft., respectively; and about 2,000 acetylene cylinders of capacities of 240, 100, and 60 cu. ft., respectively. Also supply of 100 each oxygen and acetylene gauges. Two years spare parts to be included. Bid deadline Aug. 3. Write to: S. K. Wijeweera, Purchasing Manager, Ceylon State Hardwood Corp., P.O. Box 670, 242 Havelock Road, Colombo 5. Facsimile of tender docs may be used to submit quotations but refundable tender deposit of 1,000 rupees must be forwarded with bids. Tenderers should supply 3 copies of drawings as stated. Prices c.i.f. Colombo. Tenders should be forwarded in duplicate to Chairman, Tender Board at above address. Ref.: 06/05/149. Value estimated at 2 million rupees ($231,546). Mode of payment not stated in tender.

• **35600—KENYA**—Supply and delivery of two bandscreens (c.i.f. Mombasa) for intakes to raw water pumping station on Sabaki River about 40 km west of Malindi, together with provision of services of an engineer to check erection of plant and commission it. Each bandscreen will be required to pass flows up to 3600 M 3/H. Contract No. MCS/4; bid deadline not specified. Firms wishing tender documents should apply in writing to: Director of Water Development, Ministry of Water Development, P.O. Box 30521, Nairobi. Tender documents will be issued

only against payment of deposit of $61.27, by way of crossed check in Kenyan currency payable to "The Director of Water Development." Deposit will be refunded only on receipt of valid and complete tender at correct time. Tenderers will only be allowed tender documents if they can satisfy the Director of Water Development as to their experience in manufacturing plant concerned. Any deposit by tenderers not qualified refunded.

• **356924—INDIA**—Supply of high vacuum oil filters, according to specs, required for three-phase 100 KVA 220/132 KV power transformers. Bid deadline Aug. 25. Bid specs available for 50 rupees from R. V. Naidu, Superintending Engineer, Technical (EL) Projects, Andhra Pradesh State Electricity Board, Vidyut Soudha, Hyderabad 500049, India. Ref.: Specification APT 20/76. Bids should be sent to Assistant Secretary (Special) at above address.

Electrical industrial apparatus

3624152—INDIA—70 solid carbon electrodes size ½" dia. x 12" long for Atlas Weather-O-Meter & Fade-O-Meter; quantity: 5,000 pieces. Also, 20 cored carbon electrodes of size ½" dia. x 12" long, quantity: 5,000 pieces, for same. Quote c.i.f. Calcutta with earliest delivery terms. Reply to: K. C. Seal, Deputy Dir. (Chem), National Test House (A GOI Undertaking) Dept. of Supply, 11/1 Judge's Court Road, Alipore, Calcutta 700027. Cable Testhouse, Calcutta; phone 45-9231.

Communications equipment

• **3662XXX—ECUADOR** — La Secretaria de la Direccion General de Aviacion Civil, Avda. Colon Y Juan Leon Mera, Quito, has issued tender for supply of a receiver system for satellite photographs and other equipment related to meteorological satellite surveillance. No bids accepted by mail. Bids must be submitted by Ecuadorian agent of supplier. Copy of specifications may be picked up at above address for Sucres 500 (U.S. $20) not refundable.

• **3662XXX—GUATEMALA** — Ing. Jorge Orellana Zuniga, Director, Unidad Ejecutora, Saneamiento de la Ciudad de Guatemala 5C. Piso, Ala Poniente, Palacio Municipal, Zona 1, Guatemala City has issued tender for supply of one truck-mounted television system for examining interior surfaces of sewer pipes. Supplier must furnish training for local technicians. Also ten portable transceivers, four mobile radio-telephones. Copy of specifications available from above address.

Electronic components, accessories

• **367XXXX—KOREA**—Office of Supply, Seoul, has issued tender no. KFX-76122-PI for supply of electronic components, many types, as repair and maintenance parts for satellite communications equipment, radio terminal equipment, and carrier telegraph and telephone equipment. Bid deadline Aug. 3. Copy of specifications available from above address.

Engineering, laboratory, scientific, research instruments

• **3811XXX—KOREA**—Office of Supply, Seoul, has issued tender no. KFX-76127-PIII for supply of one set coke reactivity testing equipment, including electric furnace, temperature control panel, gas supply control panel revolving tester and spare parts. Bid deadline Aug. 5. Specifications available from above address.

• **38110—MALAYSIA**—Bursar, Universiti Sains Malaysia, Minden, Penang, Malaysia, has issued invitation for offers for supply and installation of scientific equipment in School of Applied Sciences for one-year period. Bid deadline Aug. 9. Copy of specifications available from above address upon payment of fee of M$50 (US $1.00=M$2.50).

Surgical, medical, dental instruments

• **3841XXX—SRI LANKA** — Department of Health, P.O. Box 584, Colombo, has issued tender no. CON/TEN/76/193 for supply of blood transfusion equipment—60,005 disposable administration sets, 10,000 disposable donor sets, 10,000 sterile dry vacuum bottles, 10,000 feed latex surgical tubing, 30,000 sterile A.C.D. bottles. Bid deadline Aug. 3. Copy of specifications available from above address.

Photographic equipment, supplies

• **3861XXX—GUATEMALA** — Institudo Geografico Nacional, Anenida las Americas 5-76 Zona 13, Guatemala City has issued tender no. 28-76 for supply of one serial photogrammetric standard angular camera, 23 CMX format, focal length, 6 inches. Bid deadline July 27. Specifications available from above address.

• **3861XXX—KOREA**—Office of Supply, Seoul, has isued tender no. KFX-76131-PI for supply of 7 boxes, 100 sheets each, 20 inch x 40 inch black and white orthochromatic graphic arts photo film. Bid deadline Aug. 3. Copy of specifications available from above address.

Scrap materials

5093XXX—GREECE—1,000 tons cotton waste to be used as grease absorbing material. Acts as agent and importer of construction materials. Interested in direct import of above needs f.o.b. prices and time of delivery. WTDR on request. Reply to: Alex Tsamkosoglou, Mgr., Alex Th. Tsamkosoglou, Tsamco Trading, 16 Douk Plakentias St., Athens 605. Tel. 6425797; cable: Tsamcotrad.

Antique, secondhand stores

5931XXX—EGYPT—Off-season, used and out-of-fashion garments in bulk. Requests price list c.i.f. Alexandria and catalogs, if available. Riad is well known wholesaler in Alexandria. Cable—Mr. Samir Riad, El Samir Bro., 2, Sinan St., El Garaya Bldg., Manshiya, Alexandria. Cable: Samirian, Alexandria; tel: 804814.

Visiting Buyers & Officials

SAUDI ARABIA—A.M.Y. Alreshaid, P.O. Box 363, Alkhobar, Saudi Arabia; telex 67017 AMYR, wants to become an exclusive dealer for all of Saudi Arabia for **220 v. refrigerators and one to two-ton window air-conditioners.** The company has a good technical staff and service facilities to handle air-conditioning products, and aggressively and diligently promotes the products it sells. Alreshaid may be contacted directly or through Terry Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

UNITED ARAB EMIRATES—A prominent Sharjah businessman, Salem Al-Shamsi, is seeking a U.S. firm to assist him in establishing a **department store** in Sharjah. He is willing to discuss a variety of arrangements, including supply or joint venture management. Interested parties should contact Al-Shamsi directly by writing P.O. Box 1761, Sharjah, U.A.E. Please forward a copy of all correspondence to: Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C., 20230, 202-377-4441.

AUSTRALIA—William J. Ramsey, Director, K. K. Diesels Pty. Ltd., Sydney, is interested in locating suppliers of **medium and heavy-duty trucks, spare parts and accessories.** He may be contacted through Terry Rettig, 202-377-3265.

SWITZERLAND—Rene Rochat, President, EXA SA, Chemin De La Praly 15, 1222 Vesenaz, Geneva, is interested in exchanging technology between American and European firms in the fields of **specialty chemicals, surface treatment techniques, photo etching equipment, marine instruments, and electronics production equipment and instruments.** Rochat offers to act as consultant to U.S. manufacturers of materials or equipment seeking to export or to manufacture under license in Europe, is willing to travel within the United States if necessary. He can be reached through Stanley Lieberstein, c/o Osholenk, Faber, Gerle, Soffen, 260 Madison Ave., New York, N.Y., or Vanguard Research Associates, South Plainfield, N.J.

IVORY COAST—Mohammed Abdulla, Director Societe Ivoirienne de Promotion de Supermarche (PROSUMA), Boite Postale 20. 837, Abidjan, is interested in **kitchenware, aluminum and stainless cooking utensils, household brooms, general household articles for rack-type and counter sale in supermarkets and small household appliances (220V, 50HZ only)** He may be contacted directly in Abidjan or through Terry Rettig, 202-377-3265.

AUSTRALIA—N. Grant, Managing Director, Premier Sporting Products, 569 Princess Highway, Rockdale, NSW 2216, is interested in **gun oil, telescopic sights, moulded plastic shooters accessories and all products associated with sporting firearms,** but not guns. His itinerary is as follows: Denver, July 19; Fort Worth, July 22; Nashville, July 24; Philadelphia, July 30; Pittsburgh, Aug. 2; Chicago, Aug. 4; Portland, Ore., Aug. 18; San Francisco, Aug. 22. He may be contacted directly in Australia or through Terry Rettig, 202-377-3265.

JAPAN—Koreiyo Terada, President of Tak and Co., Inc., 1-21-5, Befu, Nishi-Ku, Fukuoka 814, is making a trip to the U.S. to buy **cattle** and **ash wood lumber for baseball bats.** Terada will be in New York, July 18-22; Kansas City, July 22-25; Denver, July 26-28; and Los Angeles, Aug. 15-19. Interested parties should contact U.S. Department of Commerce District Offices in the above cities or Foreign Buyer Staff, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230, 202-377-3265.

JAPAN—Hachiro Iyoda, President, K. K. Iyoda Kanamono, 105 Ohiri, Myodaijicho, Okazaki 444, is a distributor of **household appliances, housewares and home decorating products.** Iyoda is interested in "new-to-market" products complementary to his present line. He may be contacted directly or through Terry Rettig, 202-377-3265.

JAPAN—Yoshinari Kimura, Managing

Director of J.A.C. Co., Ltd., 7-7-3 Chome, Kyomachi, Kokura Kitaku, Kitakyushu City, Japan 802, is interested in importing **ferro-nickel alloy scrap,** preferably hoop or coil containing 45 to 60 percent nickel. He may be contacted directly or through Terry Rettig, 202-377-3265.

AUSTRALIA—F. D. Bush, Managing Director, Firebrick Constructions Pty., Ltd., 21 Hinkler Ave., Carinbah, New South Wales, 2229 Australia will be in the U.S. for two weeks beginning July 23. He is interested in contacting suppliers of **refractory bricks or raw materials** to discuss representation and to learn the latest installation technology. He may be contacted directly or through Terry Rettig, 202-377-3265.

AUSTRALIA—Wallace Halpin, Managing Director, Chapman P.W. Engineering Pty. Ltd., 78 Arncliffe St., Arncliffe, N.S.W. 2205 Sydney, will visit the U.S. in August to contact American suppliers of **equipment and instruments for dental and optical surgeries and laboratories.** He is also interested in acquiring **contact lens blanks and grinding machinery.** Halpin will visit San Francisco, Los Angeles, New Orleans, Miami, Williamsburg, Va., Washington, D.C., and New York City. He may be contacted directly or through Bill Corfitzen, 202-377-2068.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Industrial chemicals

2816XXX—THAILAND — Titanium dioxide for paper industry. Requests c.i.f. prices & general information. Reply to Udom Vidyanakorn, Mgr., Bhanuvid & Assoc., P.O. Box 875, 164 St. Louis St., SOI 2, South Sathorn, Bangkok. Cable Bhanuvid; tel 2341372.

Glass products

3231633—AUSTRALIA — Table, kitchen, art & novelty glassware both hand & machine made. Similar products to Anchor Hocking & Federal Glass. Covers Australia. WTDR in prep. Excl. distr. Reply to—John Harkin, Mgr., Frank M. Harkin & Co., 46 Holt St., Surry Hills, N.S.W. 2010. Cable Harkinmel; Tel. 699 3644.

Pottery, related products

3261051—CANADA—Towel bar holders, toilet paper holders. Excl. agency. Mfrs. agency estab. 1951 selling largely to construction trade in British Colombia. Banking source states firm has carried satisfactory account for many years & is fully responsible for regular business commitments. Reply to—G. J. Miles, Pres., P. A. Miles & Sons Agencies Ltd., 1620 W. 5th Ave., Vancouver, B.C. V6J 1NB. Tel 604-736-2696.

Communications equipment

3662631—NORWAY — Small tone frequency telemetering system for transmitting alar, analog measuring values & supervisory control. Estab. 1972 as mfr., agent & importer of alarm & surveillance equip. Employs 12. Excl. distr. Write or call—Jorgen Nordahl, mgr., Avansert Elektronikk A/S, Skarerveien 100, P.O. Box 62, 1473 Skarer. Phone 02 46 10 10. Ref. Den Norske Creditbank, Oslo.

3662681—SWEDEN—Home TV game attachment, which should work on any size TV set. Cannot make est. dollar value, but intends to buy 10,000 units. Well estab. co. (1967), financially sound. Business obligations met punctually & co. enjoys good reputation in business community. Recommended as suitable trade contact. Reply to—Bertil Nyman, Gylling Hem-Elektronik AB, Fack, S-161 11 Bromma 11. Cable Gyllinggrup; telex 19400; tel.: 08/98 16 00.

Electronic components, accessories

3679047 — AUSTRALIA — Phonograph needles & cutting styli. Seeking new suppliers. Excl. distr. Reply to—Michael Dean, Gen. Sales Mgr., Goldring Sales & Service Pty. Ltd., 26-28 Ricketty St., Mascot, N.S.W. 2020. Telex AA24526; tel. 669 6088.

UNDP Approves Ten Requests For Financial, Technical Aid

The United Nations Development Program (UNDP) has recently approved ten requests for financial and technological assistance from eight countries and regions.

These projects are listed below with the potential opportunities for subcontracting or procurement of equipment, or both, shown in parentheses.

Interested U.S. firms may obtain copies of these project summaries from the Export Information Reference Room, Office of Export Development, Room 1063, Attn: Betty W. Patrick, U.S. Department of Commerce, Washington, D.C. 20230. Please include a self-addressed label with your request, and identify each project summary desired by project number, country, and title. If the booklet, *UNDP Business Guide,* would be useful, please so indicate.

BUR/70/515 — BURMA — Universities' Computer Centre (equipment).

EGY/75/004—EGYPT — Power sector survey (subcontract).

IND/74/009 — INDIA — Groundwater studies in the Ghaggar River Basin in Punjab, Haryana and Rajasthan (equipment).

INS/72/019—INDONESIA — Highway planning (equipment).

INS/74/034 — INDONESIA — Assistance to industrial development of building materials manufacture (subcontract/equipment).

MOR/73/002 — MOROCCO — Establishment of Moroccan Packaging Institute (equipment).

RAF/75/051 — REGIONAL (Africa)—East African Civil Flying School, Phase II (subcontract/equipment).

RLA/72/100 — REGIONAL (Latin America)—Regional educational systems network (subcontract/equipment).

RLA/74/008 — REGIONAL (Latin America)—Veterinary mobile laboratory services program (equipment).

TUR/75/070—TURKEY — Health manpower development (equipment).

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The agricultural goal, 8 percent of the gross national product by 1979, will require substantial infusions of capital for construction of irrigation works, transportation and storage facilities, and purchase of farm machinery and equipment.

Steel output will be quintupled. Aluminum output is expected to more than double. The automotive industry is being restructured to raise the percentage of locally manufactured parts from 35 percent to 90 percent. Transportation and communication facilities will be improved to reduce current bottlenecks. Heavy investment is planned in social infrastructure-electrification, medical care facilities, and housing.

The 13 sectors of the economy covered in this survey include:

- agro-industry
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COMMERCE AMERICA

FORMERLY COMMERCE TODAY

U.S. Department of Commerce / August 2, 1976

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Newsmemo

U.S. action to slow down the worldwide export credit race is getting important support. The Eximbank recently took a leadership role by setting more stringent conditions in the area of cash payments and repayment terms. Since the June announcement at least four important competitor nations, Canada, Germany, Japan and the United Kingdom, have stated that they will adhere to similar guidelines. The goal of this effort is to bring official export financing practices closer to market standards. The new U.S. guidelines are in effect on a trial basis through next June 30.

A group of 17 top-level executives will advise government officials on U.S. controls over strategically-sensitive exports. The unit was established by the President's Export Council. Its task, in the words of Council chairman Fletcher L. Byrom, is to help the government "deal realistically and effectively with the problems of the business community regarding export licensing as affected by national security and foreign policy considerations. In-depth consultation on existing Commerce Department export control activities will be an integral component of the subcommittee's effort." The electronics, computer and machine tool industries are strongly represented. First meeting is Aug. 4.

The Bicentennial has given U.S. businessmen working in the Latin American nations an opportunity to make an important point. A detailed 200th Birthday statement by the Association of American Chambers of Commerce in Latin America provides a chapter-and-verse explanation of the benefits that American investment has brought to the entire hemisphere. A conclusion is underlined: "The jobs and income generated by the investments in U.S. manufacturing affiliates and by the affiliates' subsequent production expenditures have been important supplements to the jobs and income of many Latin Americans, particularly in the lower income groups." The association has 15 chambers with 8,500 members who have day-to-day contacts with their Latin counterparts.

Such defenders of multinational corporate activity still have a long way to go in reaching public opinion, however. As a case in point, note the reactions at foreign policy forums held in the West this spring. The California Council on International Trade observed with dismay that at such meetings "the multinational corporation was characterized as responsible for a large number of global woes by diverse non-business sectors of the public." The Council quoted host State Department officials as commenting: "In San Francisco, as in Portland, MNC's were the target for numerous expressions of outrage. Without differentiation (and virtually without defenders), they were labeled the villains of the underdeveloped world, exploitative and unconcerned."

Criticism of multinational corporate activity grows out of a murky informational background. H. Edwin Robison, whose Stanford Research Institute recently did a major study of foreign investment in Mexico, refers to "sheer ignorance about the economic impact of MNC's on both the home and host countries." His institute had been commissioned by the American Chamber of Commerce in Mexico to make the study. The Chamber had found a serious vacuum of knowledge in local academic, financial, governmental and even business circles about the influence and role of foreign-affiliated firms on the Mexican economy.

A set of voluntary guidelines for MNC's recently adopted by the major industrialized nations can be a positive step in this area. The action by the Organization for Economic Cooperation and Development put 23 governments on record with important recommendations for business conduct. Covered are such fields as disclosure of information, competition, financing, taxation, employment, industrial relations, science and technology. Though compliance is voluntary, the guidelines can be expected to exert persuasive pressures, both on multinational firms and host nations.

Establishment of these guidelines has won favorable notice from a major U.S. business unit. The USA-Business and Industry Advisory Committee, whose member associations include the Chamber of Commerce of the U.S. and the U.S. Council of the International Chamber of Commerce, is urging careful study of them and asking members to cooperate fully with U.S. Government officials in promoting understanding of them.

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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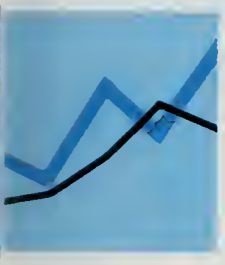

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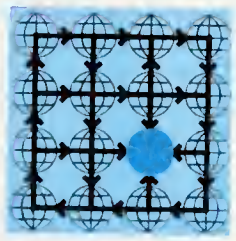

COVER: This speeial issue provides summaries of current eeonomie conditions and the outlook for U.S. sales in major trading nations. Information is from recent reports by U.S. Commercial Officers around the world, as analyzed by Commeree Department speeialists in Washington.

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ECONOMIC HIGHLIGHTS

VITAL FACTOR IN ECONOMIC OUTLOOK:

Vigorous Productivity Growth

This column is written by John W. Kendrick, Chief Economist of the Department of Commerce. Productivity was one of Dr. Kendrick's main fields of research before he accepted his Commerce post; he plans to discuss other aspects of this subject in future articles.

John W. Kendrick

In recent years, Americans have become increasingly aware of the importance of increasing productivity. Most of us now understand that increasing output in relation to hours worked and to other resources, or "inputs" used in production, has a number of beneficial results. Two of those results are especially pertinent to the current economic situation and to the years immediately ahead: (1) productivity advance is the chief source of rises in labor compensation, in real terms, and thus of rising purchasing power per capita; and (2) productivity advance has an anti-inflationary effect since it is an offset to increases in wage rates and other input prices, and thus helps hold down the costs of production.

It should be noted, however, that progress on the productivity front, like any other change, can have some disadvantages. Cost-reducing technological innovations, the chief source of long-run productivity gains, may cause displacement of labor, early obsolescence of capital, or other undesirable effects in particular occupations, industries, and geographical areas. The most serious effect, the displacement of labor, generally should be temporary if there are aggregate-demand policies to promote a high level of employment, as well as appropriate retraining and relocation measures such as those provided in the Comprehensive Manpower Training and Development Act of 1973.

Productivity, defined here as output per hour, plays a crucial role in the wage-cost-price relationship. The essential point is that increases in output per hour (O/H) reduce the impact of rising average hourly compensation (W/H) on unit labor costs (W/O). In simple terms, unit labor cost equals average hourly compensation divided by output per hour (W/O=W/H÷O/H). For moderate rates of change, the relationship is basically additive. That is, the percentage change in unit labor costs is composed of the percentage increase in average hourly earnings minus the percentage increase in output per hour. Since labor cost is the major part of national income, labor cost per unit of output is the most important influence from the supply side on prices of final products.

The movements of these basic variables since 1947 are summarized in the table in terms of average annual rates of change in the private economy. For almost two decades, from 1947 to 1966, output per hour rose at an average rate of 3.4 percent per year. Average hourly labor compensation increased 5.2 percent per year. Unit labor costs rose by less than 2 percent a year since productivity growth offset more than half of the effect of wage increases. Prices rose by a bit more than 2 percent a year, reflecting a somewhat faster rise in business taxes and other nonlabor costs than the increase in labor cost. Inflation reduced the growth of real average hourly earnings to 3.0 percent per year, close to the rate of increase in productivity for this period.

Trends in productivity and real average hourly labor compensation (that is, earnings adjusted for price changes) are virtually parallel, as depicted in Chart 1—an indication that labor compensation has remained a relatively constant share of gross product.

Between 1966 and 1973 (the most recent peak of the business cycle), the picture changed significantly. The trend rate of productivity advance slowed to 2.1 percent a year, while the rate of increase in average hourly earnings accelerated to 6.9 percent. Consequently, unit labor cost increases accelerated to a 4.7 percent average annual rate. Prices rose somewhat less than unit labor costs in this period due mainly to macroeconomic policy. That policy, while designed to slow inflation, also squeezed profits. Thus, real average hourly earnings rose by 2.5 percent a year, a bit more than labor productivity, but at a lower rate than in the earlier era of faster productivity growth.

In the recession year of 1974, productivity declined for the first time in 25 years. At the same time, average hourly labor compensation accelerated to 9.4 percent. With productivity declining, unit labor costs rose into the double-digit range. Prices did not rise quite as fast since profits declined sharply, but the increase was enough to reduce the purchasing power of wages by 0.2 percent.

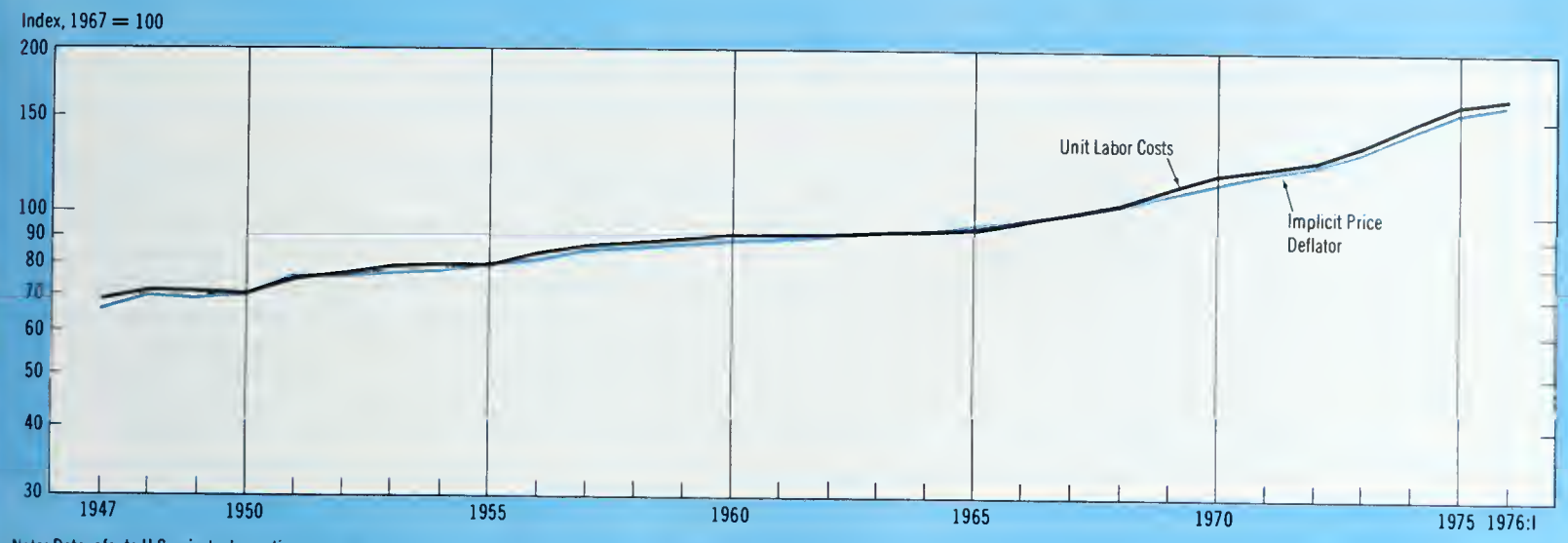
After the first quarter of 1975, the picture brightened as the economy rebounded from recession. For the year, average productivity was 1.3 percent above 1974. Although average hourly labor compensation rose almost as fast as in the previous year, the productivity gain moderated the increase in unit labor costs. Prices rose somewhat more than unit labor costs as the economic expansion permitted a widening of profit margins from the recession low. Real earnings sagged further as prices again rose a little more than average earnings.

The situation continued to improve in successive quarters in 1975. By the first quarter of this year, output per hour was 5 percent higher than the first quarter of 1975. This rate is well above the long-term trend but it is not unusual for a recovery period when an increasing proportion of productive capacity is being utilized. The rate of increase in average hourly labor compensation decelerated to 7.4 percent. Unit labor costs decelerated much more, to only a 1.7 percent increase. Prices rose more than unit labor costs as profit margins continued to recover. Nevertheless, real earnings were on the upswing—by a healthy 2 percent.

Even though slower expansion in the second quarter of 1976 was associated with a smaller increase in productivity, there is reason to believe that developments will continue relatively favorable well into 1977. There is still more excess plant capacity and unemployed labor than is typical at this stage of recovery, due to the severity of the recent recession. Based on past relationships, it seems likely that real product per hour will continue to increase somewhat above the trend-rate. There is also no evidence of acceleration in average hourly labor compensation; in fact, the rate of increase has come down somewhat as price inflation has decelerated. If increases in average hourly labor compensation remain in the 7-8 percent range, and productivity advances between 3 and 4 percent during the coming year, price increases should hold in the 4 to 6 percent

Unit Labor Costs and Prices

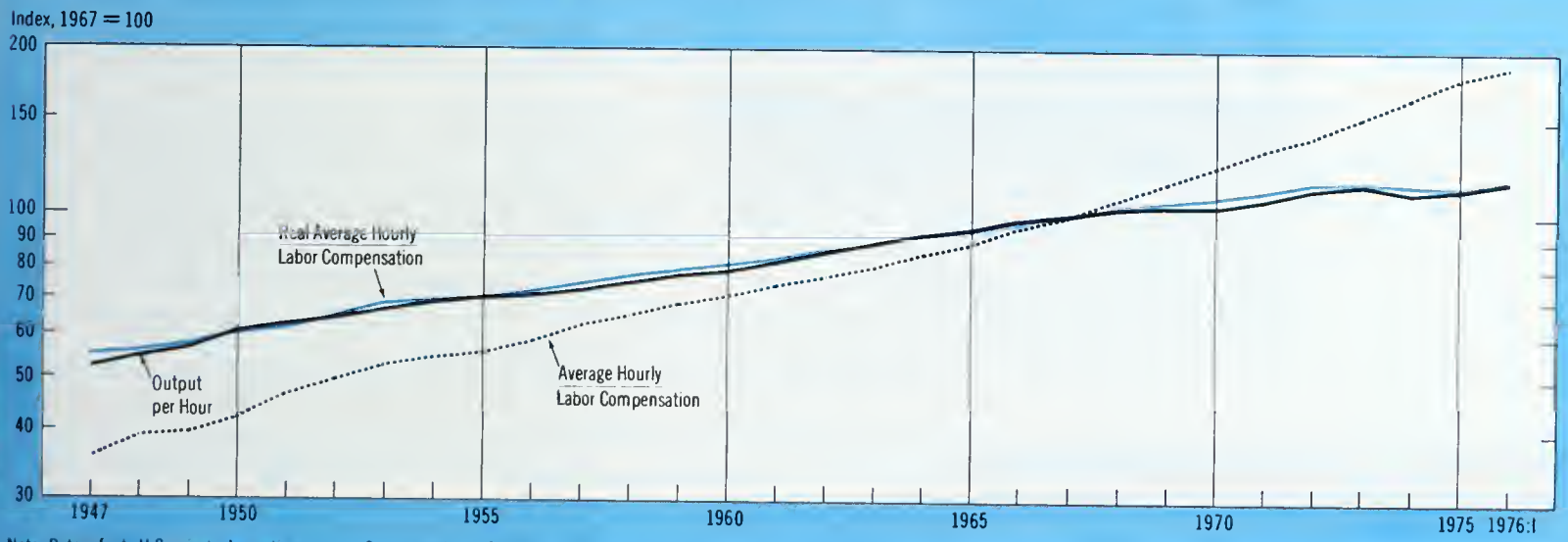
1



Note: Data refer to U.S. private domestic economy.
Source: Bureau of Labor Statistics and U.S. Department of Commerce.

Average Hourly Labor Compensation in Current and Constant Dollars and Output per Hour

2



Note: Data refer to U.S. private domestic economy. Compensation deflated by implicit price deflator for private domestic GNP.
Source: Bureau of Labor Statistics and U.S. Department of Commerce.

range—a big improvement over the double-digit rates of 1973-74. This assumes that there will be no major upsurge in prices of farm products and major raw materials, domestic or imported. Prospects presently appear favorable on this score.

We will come to a fork in the road, however, by late 1977 or 1978. The above-average productivity gains associated with recovery will be coming to an end. Then the question is: Will productivity advance return to the subnormal 1966-73 trend-rate of about 2 percent a year, or can we resume the 1947-66 trend advance of better than 3 percent? This is an important issue, since the higher rate would provide more help in holding down inflation, and make possible stronger advances in real income per capita, a prime goal in every economic system. ☆

Productivity, Labor Costs and Prices
U.S. Private Domestic Economy
(Percent Change at Annual Rates)

	Output	Output per hour	Average Hourly Labor Compensation	Unit Labor Costs	Implicit Price Deflator	Real Average Hourly Labor Compensation
1947-66	4.0	3.4	5.2	1.8	2.1	3.0
1966-73	3.5	2.1	6.9	4.7	4.3	2.5
1973-74	−2.3	−2.6	9.4	12.3	9.6	−0.2
1974-75	−2.5	1.3	9.1	7.7	9.3	−0.2
1975:I–1976:I	7.8	5.6	7.4	1.7	5.3	1.9

Source: Bureau of Labor Statistics and U.S. Department of Commerce.
Note: The estimates were prepared prior to the July 1976 revisions of the GNP estimates.

United States trade is expected to remain in deficit in the final six months of the year despite prospects for some further pickup in exports. Assuming that the U.S. economy grows at the officially projected rate of 6.8 percent in real terms for the full year, imports will continue to be stimulated in the second half. Exports, which began to rise again in the second quarter, should pick up further, chiefly because of expanding economic activity expected in the industrial countries, the major markets for U.S. products.

The export increase foreseen in coming months should raise the dollar value total for the year moderately above the 1975 level. The continued growth projected for imports implies a substantial expansion over last year's total. If these trends materialize, there would be a trade deficit on the f.a.s. (free alongside ship) valuation basis of relatively modest size, and a much larger imbalance when freight and insurance are included in the import value. Two-way trade now exceeds $200 billion annually, and small shifts in the expected rates of growth for exports and imports could result in substantial fluctuations in the balance. Consequently, the difference between trade outflows and inflows is difficult to measure in specific amounts.

TRADE FORECAST

U.S. Export Growth Expected To Quicken; Imports Lead Pace

In the first six months, exports were running at a seasonally adjusted annual rate of $111.1 billion, 4 percent above last year's total. Imports, valued f.a.s., climbed to $113.2 billion, an 18 percent expansion from the 1975 level. The merchandise trade balance shifted to a deficit of $2.1 billion from the record f.a.s. surplus of $11.0 billion last year. Using c.i.f. (cost, insurance, freight) valued imports of $121.7 billion for January-June at an annual rate, the deficit was $10.6 billion.

The relatively modest expansion in exports so far this year reflected the moderate growth in sales to the developed countries, despite a considerable rebound in their industrial production from the lows recorded during the recession. U.S. export growth has also been limited by a slowdown in deliveries to the oil-exporting developing countries. These exports may have been affected in part by difficulties in absorbing the huge increases in supplies ordered from abroad in 1974-75. Furthermore, the non-oil LDCs reduced their purchases in recent months as a result of their lower export earnings last year.

The size of the increase in exports in the second half will depend heavily on the strength of the economic recovery in the developed countries. One uncertainty involves the Western European economies, where it is unclear whether investment spending will be strong enough to sustain a strong recovery once the effects of restocking and the upturn in consumer spending diminish. Sales to Japan were slower in the first half of 1976 than the favorable economic developments in that country would have indicated, but a pickup recently may point to stronger exports in the final six months.

The forecast for continued economic gains in the United States suggests further growth in arrivals of petroleum and other industrial supplies. The rate of increase in imports of consumer goods, however, may slow, should the rise in consumer spending taper off. If growth is sustained in U.S. capital equipment expenditures, machinery imports may accelerate.

Machinery shipments to pick up

The anticipated continuation of economic expansion abroad in the remainder of 1976 should provide a gradually improving climate for U.S. sales of machinery, which account for more than one-third of our nonagricultural exports. In the first half, machinery shipments exceeded the level in the comparable period of 1975 by 10 percent, but they were only slightly higher than last year's second half as a result of the investment slump in foreign industrial countries which only recently showed signs of ending. If requirements increase as expected, however, growth in this major export sector should accelerate in the second half of the year. The expansion would help to compensate for

less vigorous exports to the oil-exporting LDCs, which accounted for most of the rise in machinery sales in 1975.

U.S. exports of automotive products to Canada should continue to climb in the second half, buoyed by shipments of parts for assembly into cars for the U.S. market. Deliveries of motor vehicles to other destinations, however, are likely to drop below last year's value because of a fall in truck exports. These had surged to Iran in 1975. Civilian aircraft exports, which had declined by 14 percent in January-June from the first half of 1975, are expected to remain sluggish for the remainder of the year as a consequence of weak demand and lengthened delivery schedules for large transport planes. Military aircraft exports also declined this year, but given the large orders on hand from Near East countries, shipments are likely to rise in coming months. Exports of aircraft parts can be expected to record a further increase in 1976 as they have each year during the past decade.

The upturn in foreign industrial production, which began generally in mid-1975, stimulated an increase in sales of a number of industrial materials which has continued this year. Shipments of organic chemicals and plastic materials rose strongly in the first six months, and the expected pickup in world demand for consumer and industrial products should sustain export growth in these items.

Shipments of steel, on the other hand, fell in the first half. While sales may rise somewhat as demand gradually strengthens, the year's total will be well below 1975. Similarly, coal deliveries will probably gain momentum in the final half, but for the year as a whole will show a decline.

Farm sales may be lower

Exports of agricultural products, after declining fractionally in 1975, may show another small decline. Overall, the volume of farm shipments will be higher than in 1975, but lower average prices could result in a reduction in the value. Based on current production estimates, world supplies of farm commodities will generally be improved over last year, thus contributing to downward pressures on export prices. Demand abroad is expected to remain relatively strong, however, especially for corn and soybeans, as the economic recovery increases meat requirements and the drought in France, Britain, and other West European countries reduces local supplies. The total value of grain and soybean sales from the 1976 crop to the USSR is yet to be determined, but recent announcements indicate that the value of agricultural exports will be boosted by these deliveries toward the end of the year. Foreign demand for U.S. cotton has strengthened recently as a result of the recovery in textile production abroad. Second half shipments will increase, but the year's total may not exceed that of 1975.

Imports to rise

The continued expansion of imports in the second half will be led by larger amounts of petroleum and other industrial supplies. Demand for these goods reflects further expected growth in U.S. industrial production and sustained improvement in residential construction. The higher level of petroleum imports will result both from increased demand for, and lower domestic production of, crude oil. The value will also be boosted by slightly higher prices as a result of strengthening worldwide requirements and shifts in the quality of oil imports. No official price increase by OPEC countries is expected this year. Natural gas receipts from Canada will also increase in value following the 12 percent price advance effective in September.

Steel imports will continue to expand, largely as a result of increased demand for sheets used in the production of autos and other consumer durables. Larger requirements related to production of cars and to construction, along with projected increases in prices, will result in buoyant imports of copper. The pace of home building will continue to provide a demand for softwood lumber from Canada, while inventory rebuilding will be an important factor in expanded imports of Canadian newsprint.

After leading the recovery in imports in the last 12 months, arrivals of consumer goods as a group are projected to expand at a somewhat slower rate in the remainder of the year. Demand for American-type passenger cars from Canada, which advanced strongly in the first half, will continue to grow throughout the year. Unless consumer demand for the smaller autos from other countries rises substantially, however, those imports are not expected to expand in the second half. Most of the import increase for foreign cars in January-June was used to rebuild depleted inventories, as sales dropped off from last year's pace.

Reflecting somewhat greater domestic expenditures for plant and equipment, imports of capital goods are projected to continue the advance begun in the final quarter of last year. Boosted by higher average prices and moderate increases in volume, the value of food and beverage imports should also continue to advance through the year. ☆

Current economic conditions and the outlook for U.S. trade in the majority of countries with which U.S. firms do business are presented on pages 6-48. The 68 regional and country summaries are based on up-to-the-minute reports from U.S. Foreign Service posts and other sources. Data on U.S. trade with selected countries not detailed in separate articles are presented in tabular form on Page 48.

CANADA

Recovery Is Continuing, But At Moderate Pace

Canada's economy will continue to gain through the remainder of 1976, according to Kenneth Fernandez of the Bureau of International Commerce, though at a somewhat slower pace than in previous recoveries. Growing consumer outlays, particularly for non-durables and services, increased residential construction, growing demand for Canadian exports in the U.S. market and a resurgence of inventory accumulation following a period of heavy depletion during the early months of the year are expected to point the way.

For the first quarter of 1976, the seasonally adjusted Index of Real Domestic Product rose 1.7 percent; the adjusted Index of Industrial Production increased 2.5 percent. Recovery was sluggish in the final months of 1975, with labor disputes and relatively minor advances in the manufacturing sector acting as a drag on the economy. However, most of the labor disputes in the forestry industry and the pulp and paper mills ended during the first quarter of 1976, boosting output in the latter sector by 27 percent in the quarter. With an increase in consumer spending, manufacturing, particularly of non-durables, is showing strength and the recovery appears to be accelerating.

Forecasts of economic activity for 1976 by The Conference Board in Canada, which are in general agreement with those of other institutions, are calling for an increase in GNP of 14.5 percent to C$177.2 billion in current dollars (or a rise of 4.9 percent in constant 1971 dollars), a rise in the Consumer Price Index of 9.0 percent and housing starts at 240,000—up 3.7 percent. Unemployment is expected to hold steady at 7.7 percent, an unacceptably high level in a growing labor market.

January-April imports from the United States of C$8,457.1 million (68.9 percent of total imports) were up 29.6 percent in value over the same period in 1975. Exports of C$8,157.8 million (69.4 percent of total exports) were up 25.5 percent, yielding a four-month trade deficit with the United States of C$299.3 million, according to Canadian trade data. Total imports from all sources were C$12,272.9 million; exports were C$11,754.6 million, leaving a net deficit of C$518.3 million.

Capital investment has been one sector of the Canadian economy which has moved contrary to the general trend of business conditions in recent years, growing in value terms in 1974 by 23.4 percent and in 1975 by 16.6 percent while GNP was advancing by only 17 and 9.8 percent. Capital spending by all sectors during 1976 is expected to reach C$41,954 million, a rise of 10.4 percent over 1975.

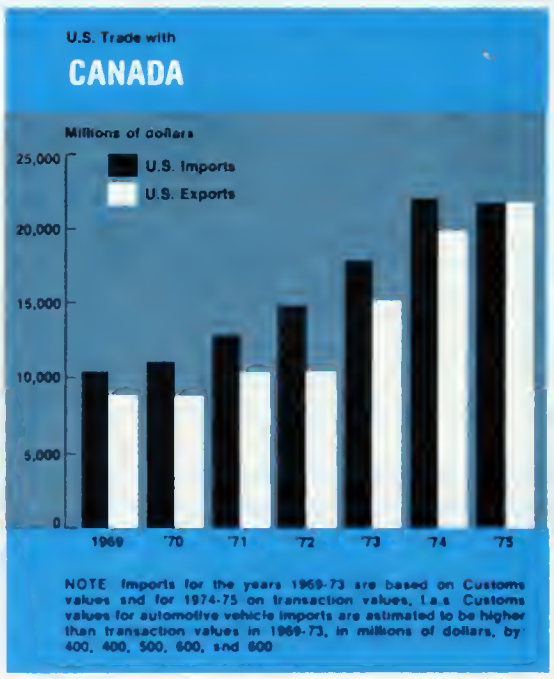
Intended capital expenditures on new construction in 1976 are estimated at C$26,810 million—up 12.2 percent over 1975. Residential construction in 1976 at C$8,614 million and non-residential at C$18,196 million are projected to be up 21.6 and 8.2 percent, respectively.

New machinery and equipment acquisitions in 1976 are expected to rise just 7.4 percent to C$15,144 million. Expenditures rose 16.4 percent in 1975 and 25.3 percent in 1974. Capital construction spending intentions by the business community are projected at C$26,284 million —up 8.6 percent over last year, while construction intentions of institutions and government departments are estimated at C$7,057 million, an advance of only 5.2 percent.

Mining, petroleum and gas firms furnish one bright spot for 1976 for new installations. Programs totaling C$3,453 million—up 31.7 percent—are projected, due mostly to expenditures by the metal mining group and by the petroleum and gas industry in conventional and oil sands development.

Although continued high inflation and uncertainty regarding the effects of the Anti-Inflation Program (A.I.P.) introduced last October may be partially responsible, the reasons for the fall in capital expenditure intentions despite economic recovery are not clear. Rising labor costs and lower rates of productivity relative to those found in the United States would usually spur higher expenditures for more efficient labor saving equipment—and this may yet occur once current uncertainties settle out.

Canadian unit labor costs in manufacturing rose nearly 30 percent from 1970-1974, while unit costs rose only 10 percent in the United States. This trend has continued through the present; however, the wage guidelines under the A.I.P., permitting maximum increases in the first year, with certain exceptions, of only 12 percent, have had a moderating effect on wage settlements. A Canadian Department of Labor analysis of 116 major collective bargaining settlements concluded during the first quarter of 1976 showed an increase in average base rates in the manufacturing industries of 11.7 percent over the life of the contract. Comparable rates of increase in previous quarters were: 2nd quarter 1975, 15.7 percent; 3rd quarter 1975, 12.4 percent; 4th quarter 1975, 14 percent.



U.S. exports to Canada are nearing the $25 billion mark annually, greater by far than to any other country. Canada is seeking to broaden its trade ties with the EEC, Japan and other countries. This policy involves no discrimination against imports from the United States and is not likely to affect trade patterns significantly, but aggressive and modern marketing methods will need to be employed to retain the present United States market share.

Spiraling labor costs in 1975 had the effect of heightening interest in U.S. sources of supply, and now the recent upward trend in the value of the Canadian dollar helps offer comparative advantages to U.S. exporters in many fields: heat and energy systems; food processing, packaging and bottling machinery; metalworking and electrical machinery; hardware supplies; and yarns, fabrics and clothing. In Quebec more interest in U.S. sources for building equipment, machinery and supplies has also been noted.

On the west coast, the depressed state of British Columbia's two major industries, forestry and mining, slowed the need for capital equipment temporarily, but with the stimulus from the pickup in the economies of the United States and Japan, and the resolution of longstanding labor disputes in the pulp and paper industries, additional capital equipment will be in demand. The purchase of pollution control equipment to meet environmental standard deadlines seems not to have suffered greatly and continues to provide an interesting market for U.S. exporters.

Sales of household appliances and furniture are likely to rise in step with the anticipated increase in housing completions in 1976. Auto sales, which have shown little growth since 1975, are also expected to register a modest increase.

After several bad years, machine tool makers for the auto industry, particularly in Ontario, are now optimistic. Demand by the Canadian industry for sophisticated numerically-controlled machine tools, operated by computers, magnetic or paper punch tapes, is gradually rising. Makers of electrical equipment, off-the-road vehicles for the mining industry and valves for the petrochemical industry are also seeking more efficient machine tools.

TRADE WITH LATIN AMERICA VARIES WIDELY BY COUNTRY

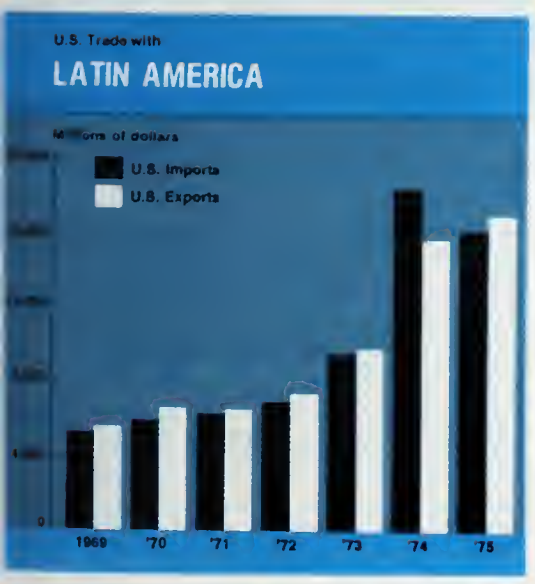
Growth, Inflation, Payments Pictures Improve

U.S. exports to Latin America are expected to grow a nominal 2 percent from a total of $17 billion in 1975 to about $17.5 billion in 1976. The distribution of this increase varies widely from country to country, from a substantial drop of 30 percent in the case of Peru to a hefty increase of 34 percent for Colombia.

Irene Johnson of the Bureau of International Commerce reports that Venezuela, Colombia and the Central American Common Market (CACM) will remain attractive markets for U.S. exporters. Exports to Mexico, the top U.S. market in Latin America, are anticipated to increase moderately, while Brazil, our second major market, will show a moderate decrease. Significant decreases are predicted for Argentina and Peru. Jamaica, the second largest market in the Caribbean, is also expected to show a sizable decline. It is expected that the United States will maintain its share of the market in most countries.

U.S. exports to Venezuela this year are forecasted to rise by 12 percent to $2.5 billion. Its development plan, which calls for $52 billion in investments for the 1976-80 period, coupled with acceleration of other economic activities, should offer a variety of sales opportunities for U.S. traders. Exports to Colombia may reach $860 million, an increase of 34 percent. Very favorable world coffee prices have resulted in record foreign exchange reserves and a strong balance of payments position. Import restrictions have been relaxed and duties lowered, making this market much easier to penetrate.

Sales to Brazil will probably decline to $2.9 billion, a 5 percent loss, as a result of import restrictions implemented to improve its balance of payments position and trade imbalance.



U.S. shipments to Chile may reach $550 million, a 3 percent increase. In mid-year 1976 Chile began to emerge from the recession of 1975, and a large balance of payments surplus is resulting. Copper prices are up and continued liberalization of imports will attract U.S. suppliers.

U.S. sales to Ecuador will probably reach $440 million and to Bolivia $145 million, an increase of 6 and 5 percent, respectively. Peru is clouded by economic problems, balance of payments deterioration, currency devaluation and imposition of strict import and exchange controls. U.S. exports are anticipated to decline from the $904 million in 1975 to $630 million in 1976, a 30 percent loss.

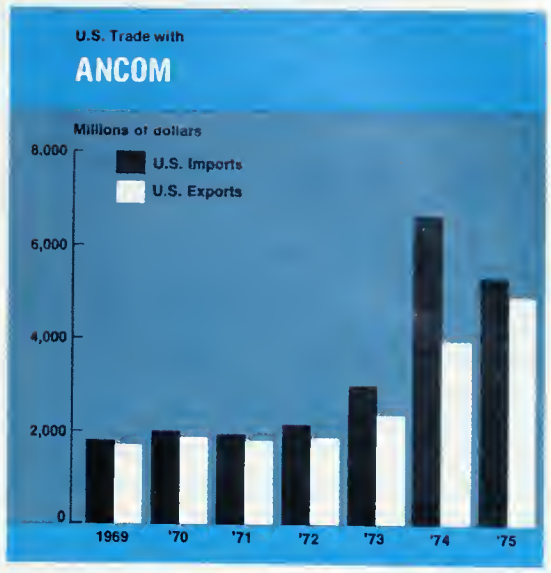
Mexico is recovering slowly from the effects of the worldwide recession. U.S. exports to Mexico are expected to rise moderately to $5.4 billion in 1976, a 5 percent rise over the previous year. Sales to the CACM and Panama may reach $1.4 billion, up 11 percent from 1975, indicating that the region is in need of restocking inventories which were allowed to dwindle in 1975. Growth rates in the Central American countries appear to be returning to their former high levels.

U.S. exports to Argentina in 1976 may decline by 28 percent to $450 million. This is due to the continuing Argentine recession and the imposition of severe import restrictions on capital goods.

Shipments to the Caribbean will remain at about the same level as 1975, when $2 billion was recorded. The Dominican Republic is faced with serious electric power shortages. The serious deterioration in all sectors of the Jamaican economy will greatly reduce its imports.

A continuing increase in Latin America's total imports is foreseen, but at a slower pace. The worldwide inflation caused by high petroleum costs appears to be decelerating in most countries of the area. An expanding market for U.S. capital goods and prime materials is assured, and the economies of the area are expected to show improvement in the second half of 1976. U.S. interest in investment in the area continues, especially in the manufacturing industries.

Market promotion by the U.S. Department of Commerce will be dramatically increased in 1977. A new Trade Center will be constructed in Sao Paulo to take advantage of the long-term growth of the Brazilian market. In Venezuela, a new exhibition facility will be ready for the opening event of the new two-year "Sell in Venezuela" marketing campaign.



ANCOM

U.S. Suppliers Still Find Strong Market Demand

U.S. exports to the Andean Common Market (ANCOM) are expected to increase by about 5 percent to $5.1 billion this year. This would be a more moderate rise than the huge 23 percent registered in 1975, when U.S. exports rose by a whopping $918 million, according to Herbert A. Lindow of the Bureau of International Commerce.

Principal factors in the continuing good outlook for U.S. sales are: 1) large balance of payments surpluses in Venezuela and Colombia; 2) Venezuela's development plan calling for $52 billion in investments for the 1976-80 period; 3) the continuing liberalization of imports in Colombia and Chile; 4) the generally good competitive position of U.S. goods despite tough third-country competition; and 5) GNP growth rates which are expected to be relatively high in most ANCOM countries with the exceptions of Chile and Peru.

The ANCOM nations did not meet deadlines at the end of 1975 for affecting further duty reductions and determining the level of the Common External Tariff. However, new deadlines have been established as follows: for goods not subject to sectoral development plans or on exceptions lists, remaining duties will be reduced in six annual successive reductions of 7 percent beginning Dec. 31, 1976; a final reduction of 8 percent is to take place on Dec. 31, 1982. The Andean Commission will approve maximum and minimum levels for the Common External Tariff (CXT) not later than Dec. 31, 1977. On Dec. 31, 1978, the process of achieving appropriate (CXT) levels will begin. The CXT will be fully in force on Dec. 31, 1982, in Colombia, Chile, Peru and Venezuela, and in 1987 in Bolivia and Ecuador. Progress in revisions of the

Andean Foreign Investment Code and in Sectoral Programming is still anticipated in 1976.

Bolivia—The economy grew by 7 percent last year and a further 7 percent increase is anticipated this year. Favorable international prices for Bolivia's chief mineral export, tin, are contributing importantly to an improving economic situation. Strong private and public investment is expected, with some 300 investment projects to be implemented. These projects are in petroleum refining and petrochemicals, minerals processing, road construction, railroad rehabilitation, electrification, small industries and agriculture.

Chile—U.S. exporters should continue to do well in the Chilean market during the remainder of 1976, with exports at about the same level—$553 million—as in 1975. In early July there were signs that the country was beginning to emerge from the deep recession of 1975. An unexpectedly large balance of payments surplus of $250 million was registered for the first five months of 1976; copper prices were close to two-year highs; import liberalization continued to move forward; and in June, import duties were reduced for the seventh time since 1974.

The Santiago International Trade Fair (FISA) will be held Oct. 28-Nov. 14. The event is the only trade fair in Chile of general interest to U.S. exporters. U.S. firms interested in displaying their wares at the Fair may obtain assistance from the Commercial Attache, U.S. Embassy, Santiago.

Colombia—Prospects are excellent for substantial increases in U.S. exports, which are estimated to rise from $643 million in 1975 to $860 million in 1976, up 34 percent. Record foreign exchange reserves, spurred by very favorable world coffee prices, combined with recovery in the industrialized nations, are causing the Colombian export sector to lead the economy back to a healthy 6-7 percent growth. Based on a strengthened balance of payments position the government has recently removed the advance deposit requirement for imports, lowered many duties and transferred a large number of imports including industrial machinery and equipment to the "Free List", thus eliminating the need for prior license approval.

U.S. exporters will find particularly attractive markets in electric energy systems, agricultural machinery, construction equipment, telecommunications equipment, and a broad range of capital goods and business equipment.

Ecuador — The remainder of 1976 should be a fairly good year for U.S. suppliers, particularly those who provide capital goods, raw materials and construction materials. Although the import boom of 1972-74 when imports about tripled is over, total imports should approach $1 billion. U.S. exports are estimated at $440 million.

Development projects under way or planned of primary interest to U.S. suppliers include irrigation, hydroelectric power, land drainage, dam construction, flood control, grain drying and storage facilities, electric energy generation and transmission, airport construction, highway construction, port expansion, railway modernization, fishing complex development, petrochemicals, and health centers.

Peru—In mid-1976 Peru is beset by economic problems auguring substantially lower levels of trade for the remainder of the year and possibly into 1977. Faced with serious balance of payments problems the Peruvian Government moved in late June to devalue the sol from 45 to 65 soles per dollar. It also imposed stricter import and exchange controls, new taxes, tightened government spending and announced a variety of other economic austerity measures.

Consequently, U.S. exports are forecast to decline some 40 percent from the extremely high levels reached in 1975.

For the longer term, U.S. suppliers should note project loans recently received from international financial institutions. These include a World Bank loan of $76.5 million for highway improvement and Inter-American Bank loans for $37.6 million for highway construction, $32.2 million for expansion of the hydroelectric plant at Cuzco, $30.5 million for water and sewage line construction and $15 million for industrial credit.

Venezuela—The market for a broad spectrum of imports from the United States and elsewhere continues strong, and U.S. sales should reach $2.5 billion in 1976. Under its development plan Venezuela will invest some $52 billion in every important industrial and social sector during the 1976-80 period in an effort to turn the country into a modern industrial society. Thus, development projects as well as the acceleration of other economic activities should generate abundant opportunities for U.S. suppliers.

U.S. exports to Venezuela should increase by about 10 percent in 1976. This comes on top of a 27 percent increase in 1975. To some extent the decrease in the growth rate was due to November 1975 increases in duties on about 800 items. These increases were implemented by Venezuela in meeting certain ANCOM obligations. The decline may also be due to severe competition from traditional and non-traditional suppliers. U.S. financing will have to be highly competitive to counteract it.

The market continues to be favorable for construction machinery, capital goods and selected consumer goods. Commerce will sponsor a series of exhibitions in Caracas during 1977-78.

ARGENTINA

Restrictions Limit Imports; Pickup In 1977 Foreseen

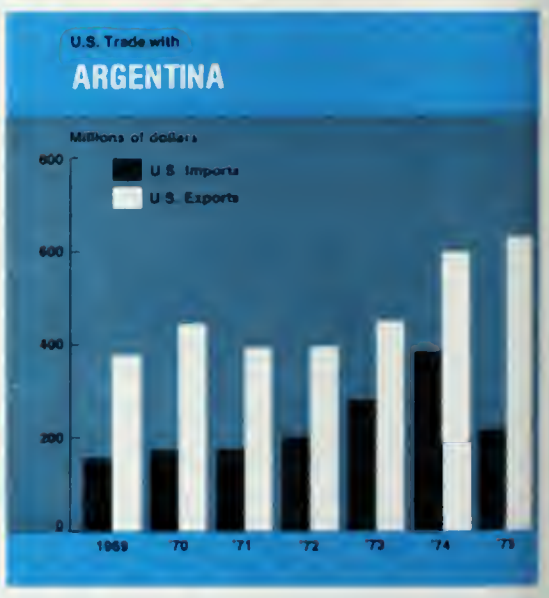
U.S. exports to Argentina in 1976 will probably be significantly lower than the $600 million approximated in 1974 and 1975. The severe Argentine import restrictions on capital goods and continuing recession there will weigh heavy on U.S. export prospects, offsetting the generally improved political and business climate, according to Larry Garges of the Bureau of International Commerce.

Argentina may post a slight surplus in its overall balance of trade in 1976, as the current outlook is for exports rising to $3.5 billion and imports dropping to $3.4 billion. Last year saw a large deficit in the trade balance, a sharp reversal from the sizable surpluses in 1973 and 1974.

The new Argentine Government which came to power in the March 24 coup which overthrew Mrs. Peron inherited enormous economic problems: a deepening recession, runaway inflation, and an external payments crisis. Real gross domestic product had declined 1.4 percent in 1975 and a further 3.5 percent in the first quarter of 1976. Inflation in March was 566 percent over the previous March. The balance of payments deficit reached $1.1 billion in 1975, the highest deficit in recent history.

The new government quickly launched a stabilization program to restore order and efficiency within the context of a more free-enterprise, market-oriented economy without price controls and with more incentives for the private sector. The program emphasized an export-oriented growth strategy based on recovery of the long-neglected agricultural sector, a reduction of the enormous fiscal deficit, and monetary, fiscal and wage discipline.

The new program has had some notable



success to date. Runaway inflation has been slowed, the exchange rate stabilized, labor productivity increased, and domestic business confidence greatly restored.

The most dramatic achievement has been in the rapid abatement of inflation: the Consumer Price Index monthly increase dropped precipitously from 38 percent in March to 13 percent in May.

The new program has raised the country's image abroad and achieved for Argentina an important measure of international support. The immediate threat of an external debt moratorium passed when U.S. and other foreign commercial banks lent strong support to Argentina, including $300 million in new short-term loans.

While the balance of payments will be much improved this year, the Argentine external debt and foreign reserves positions are delicate and will probably remain so throughout 1976 and 1977.

The recession in Argentina continues and unemployment may reach 8-10 percent before the worst is over. The recession is likely to last through most of 1976, but if the stabilization program works as anticipated, Argentina should begin to show signs of economic recovery thereafter, perhaps beginning in early 1977. Dynamic elements are likely to include construction activity, agricultural exports and new investments.

Foreign private investment has not come to Argentina for several years. To encourage foreign investment to participate in economic recovery, the government is drafting a new foreign investment law and is planning substantial modification of the technology transfer law. The government also has created commissions to quickly resolve outstanding investment disputes inherited from the Peronist Administration.

Although foreign and local investment in Argentina is expected to pick up in 1977, depressed conditions this year—with factories operating well below capacity—will dampen investment and importation of capital goods.

As capital goods constitute the most important single category of U.S. exports to Argentina, it appears that the U.S. this year will do well to maintain its present one-sixth share of the market.

There are favorable export opportunities this year in the fields of power generation and transmission, chemicals and petrochemicals, port-handling and maintenance equipment, steel foundries and rolling mills, shipbuilding and shipboard equipment, petroleum exploration and extraction equipment, and metal-working and finishing machinery and equipment.

As the Argentine economy picks up, the U.S. Government will sponsor trade missions, technical sales seminars, and catalog shows in Argentina.

BRAZIL

Trade Slightly Dipping Under Import Restrictions

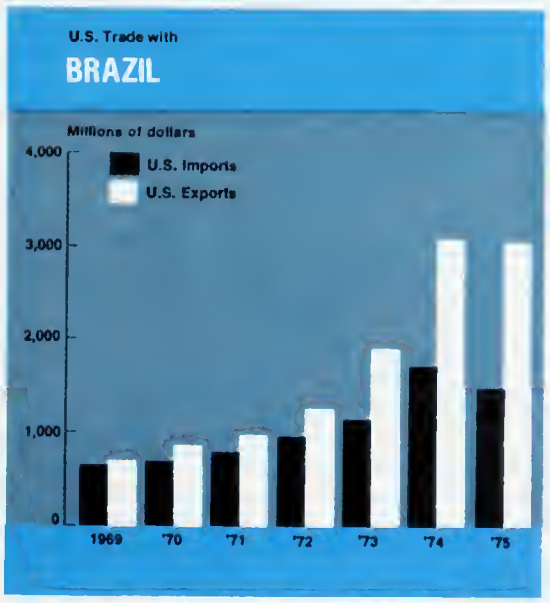
U.S. exports to Brazil, which dropped slightly from $3.1 billion in 1974 to $3.06 billion in 1975, are expected to fall below $3 billion in 1976. Brazilian imports dropped from $12.5 billion in 1974 to $12.1 billion in 1975, and are expected to drop further in 1976 as a result of Brazil's tight measures restricting imports to shore up its balance of payments position. The Brazilian Government had hoped to reduce the trade deficit to $1 billion this year, but at year's end might find a gap of $2 billion, as exports may only rise to $9.5 billion and imports may only fall to $11.5 billion. A trade deficit of $2 billion, however, would be a vast improvement over the deficits of $4.6 billion in 1974 and $3.5 billion in 1975, adds Larry Garges of the Bureau of International Commerce.

In 1977 Brazilian imports may well be on the rise again. Because of the country's vitality and immense resources, another import boom period will probably follow.

The United States accounts for approximately one-third of Brazil's non-oil imports, and is Brazil's largest trading partner. In recent years the United States has had an ever-widening, favorable balance of trade position with Brazil, which reached $1.6 billion in 1975.

Brazil's former phenomenal rates of growth of both its economy and its trade have temporarily disappeared due to measures taken to cope with balance of payments difficulties, related to world economic recession and high oil prices. Nevertheless, Brazil's economic growth in 1975, 4 percent, was highly respectable, and there is a good possibility that the growth in 1976 will be as good as, or better than, last year's.

On the crucial balance of payments front, in 1975 the total current account deficit of nearly $7 billion and debt amortization of $2.2 billion were balanced by capital inflows of $8.1 billion and a drawing down of foreign reserves by $1.2 billion. At year's end foreign reserves were down to $4.0 billion and foreign debt reached $22 billion.



During 1976 Brazil should be able to finance its current account deficit with only modest recourse to official reserves. Despite curtailed U.S. bank lending abroad, Brazil continues to attract foreign bank loans, both from U.S. and other sources.

Though inflation was down from 34 percent in 1974 to 30 percent in 1975, the money supply grew by 42 percent instead of the planned 30 percent. Even though the government has tightened up on money supply this year, inflation is running well ahead of last year's rate and may reach 40 percent. Not since 1966 has inflation reached that level.

The government's import restrictions will most likely continue in force throughout 1976. It is possible that additional restrictions will be imposed, especially if the trade deficit does not improve significantly.

The best prospects for American exports and investments lie in certain of the government's designated priority sectors. These are capital goods and machinery (such as machine tools and metal-working equipment), shipbuilding, chemicals and petrochemicals, mining and metals, and fertilizers and pesticides.

In spite of Brazil's difficulties, large projects, such as the Itaipu Hydroelectric Dam complex and the Third Steel Expansion program, involving billions of dollars in investments, are still going forward, although in some cases the schedules may be extended. The construction of several large minerals projects (e.g., Carajas iron ore, Albras aluminum) has been delayed for various reasons. Most of these projects require imported equipment, as at this time local manufacture cannot meet the demand or cannot produce sophisticated components needed.

American exporters who find their products non-competitive or who are unable to obtain import licenses may wish to consider protecting their Brazilian markets through direct investments, joint ventures, local manufacturer or licensing arrangements.

Brazil's long-range prospects are bright. The country's continental expanse, its burgeoning and active population, and its wealth of natural resources all augur well for Brazil's emergence as a major industrial power.

The next U.S. Government trade promotion event in Brazil will be a pulp, paper and converting machinery trade mission in December to Rio, Sao Paulo and Porto Alegre.

CARIBBEAN

Tighter Import Controls, Sugar Prices Dim Outlook

The potential for U.S. exports to the Caribbean is clouded by several continuing problems which show little sign of disappearing. The area's import levels may not reach those of 1975, or may exceed them slightly, but if the latter occurs it will be due more to inflation than solid growth, according to Frederic G. Kayser of the Bureau of International Commerce.

World sugar prices have not strengthened sufficiently since mid-1975 to really benefit the area's producers. The downturn in bauxite demand and tourism that resulted from the U.S. recession still prevails, although the much improved economic picture in the United States and Western Europe may be reflected in some improvement in those two industries by early next year. Foreign exchange reserves in most Caribbean countries continue to be heavily influenced by oil expenditures. Coupled with lower receipts from basic commodities, this has led two countries, the Dominican Republic and Jamaica, to impose import restrictions—the former by a quota system and the latter by a highly restrictive licensing requirement on all imports.

Country developments

Dominican Republic—The leading U.S. market in the Caribbean again offers strong opportunities, with heavy international lending for a much needed $250-million expansion of the entire power generating and transmission system, presently a detriment to both industry and agriculture. Expansion of the telephone system and Santo Domingo's bus system and modernization of the sugar industry are also under way. Considerable local and foreign capital is going into construction of new hotels in Santo Domingo and a tourist complex on the North Coast. Total U.S. sales should range between $450-500 million. Specific opportunities include construction supplies and equipment, hotel and restaurant furnishings, cooling and refrigeration equipment, pumps, centrifuges, portable irrigation equipment, and food processing, agricultural, office and sports equipment. Consumer goods can still be imported in spite of quota restrictions, through the "parallel market" which offers foreign exchange at a premium over the Central Bank's par value.

Trinidad and Tobago—Hefty, steady oil revenues, thorough planning of priorities and an excellent rating with the international financing agencies make Trinidad a very attractive and fast growing market. U.S. exports are expected to top $300 million, an increase of at least 22 percent over 1975. Top government priorities include an iron and steel plant, a plant for polyester fiber, a natural gas pipeline, a power generating plant to utilize the gas and an efficient port at Point Lisas to serve the petrochemical industry to be centered there. Second-priority plants are planned to produce furfural, fertilizer, cement, olefins and aromatics. Specific product lines in demand are instruments and apparatus for the plants and natural gas installations, more sophisticated office machinery, food processing and packaging equipment, agricultural machinery and equipment.

U.S. Trade with

CARIBBEAN

(Millions of dollars)

Country	Exports 1974	Exports 1975	Imports 1974	Imports 1975
Bahamas	253	208	957	880
Dominican Republic	410	453	473	634
Haiti	125	144	111	106
Jamaica	336	381	234	308
Netherlands Antilles	193	228	2,009	1,558
Trinidad & Tobago	192	256	1,272	1,170

Jamaica—The economic situation continues to deteriorate, with little evidence of effective solutions to the country's interrelated problems of low productivity and exchange earnings, high fuel costs, slow tourist trade and a stagnant private sector, aggravated by a shortage of materials, inflation and frequent labor problems. The government has imposed an $850 million total import limit and highly restrictive licensing procedures. A market exists for essentials in capital goods, machinery and some consumer items. The United States should hold but not exceed its traditional 40-43 percent of the market. Conditions may improve early next year if the passing of the U.S. recession builds demand for bauxite and tourist confidence returns.

Netherlands Antilles — Markets continue for oil refinery equipment and consumer goods. If problems on port and shipbuilding plans are solved, U.S. exports may reach $235 million.

Bahamas—Chief sales opportunities are for equipment for oil transshipment, refining, ship repair, water and sewerage, and some farm machinery. Projected 1976 U.S. sales are $225 million.

Haiti—U.S. sales of about $140 million will center on agricultural infrastructure, dams, roads and port improvement. Raw materials for the assembly industry continue in demand.

CENTRAL AMERICA

Economies Are Improving; Markets Remain Attractive

The Central America Common Market (CACM), comprised of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, appears to be rebounding from the adverse economic conditions which affected the region in 1974 and 1975. The remainder of this year should see an increase in the gross domestic product growth rate as well as a reduced current deficit in the balance of payments, according to Walter M. Bastian, Bureau of International Commerce.

The CACM remains an attractive market for U.S. exporters. The U.S. share of the CACM market should remain healthy (approximately 35 percent in 1975). During the first five months of 1976, U.S. exports to the CACM (including Panama) were up 12.4 percent.

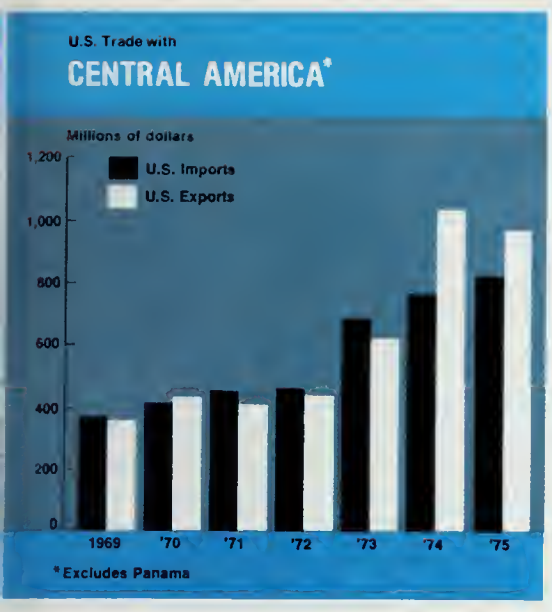
The earthquake which struck Guatemala earlier this year was most devastating on the social rather than the economic level. The total cost for reconstruction over a four-year period has been estimated at over $1 billion. Salient features of the reconstruction program revolve around rebuilding private family dwellings, social infrastructure projects (health, education and urban facilities), physical infrastructure projects (roads, bridges and ports) and productive sector needs (agriculture and industry).

Costa Rica—Tariff surcharges and import restrictions levied last year in an effort to curb imports appear to be working, as reflected in an increasingly favorable foreign reserve position. Export earnings should increase this year with an improvement in agricultural prices. GDP growth rate is expected to reach 4-5 percent this year.

El Salvador—Inflation is expected to decline from last year's level of 10 percent and GDP growth should reach 4-5 percent. The Government of El Salvador is continuing to increase the pace of public investment under the country's 1973-1977 Plan. Industrial production is up and the agricultural outlook, especially in coffee and cotton, is good.

Guatemala — Despite the disastrous earthquake in February, the GDP growth rate is expected to reach 12 percent. An increase in sugar production and higher world market prices for coffee, coupled with an increase in manufacturing production and construction activity, augur well for Guatemala.

Honduras—The outlook for Honduras is bright, generated by factors generally affecting all CACM countries. There is a strengthening of the agricultural sector following the natural disasters of the past two years. This strengthening has



been spurred to a large extent by high world prices for Honduran crops. GDP growth is expected to reach 4.7 percent. Large investments are being made in development of natural resources, particularly hydroelectricity and wood.

Nicaragua—Inflation should decrease to 5-7 percent in 1976 and the GDP growth rate should increase from 1.9 percent in 1975 to 6.5 percent in 1976. Cotton prices are up and a new stage in Managua reconstruction will begin. Infrastructure needs center around cheaper sources of energy and roads to the interior.

The following product categories appear to offer the best U.S. export opportunities to the CACM: agricultural machinery and equipment, food processing machinery and equipment, health care equipment and instrumentation, communications equipment and systems, energy systems and building and construction equipment and supplies.

Panama—long-term outlook bright

Panama, while not a member of the CACM, maintains close ties with that organization through participation in a large number of Central America Common Market institutions.

Though Panama's economic growth rate declined sharply in 1975 (1.7 percent) and unemployment is up, the long-term economic outlook is good due to proposed government projects and a new national development plan. Panama is seeking to achieve an 8 percent per year GDP growth rate.

Canal negotiations have dominated the news in Panama, overshadowing contracts signed between the state-owned Cerro Colorado Mining Development Corp. and Texas Gulf, Inc., for development and management of the large copper deposit.

Sales prospects are expected to continue to be good over nearly all of the range of consumer and capital goods, owing to Panama's heavy reliance on imports.

MEXICO

President-Elect Stresses Positive Economic Goals

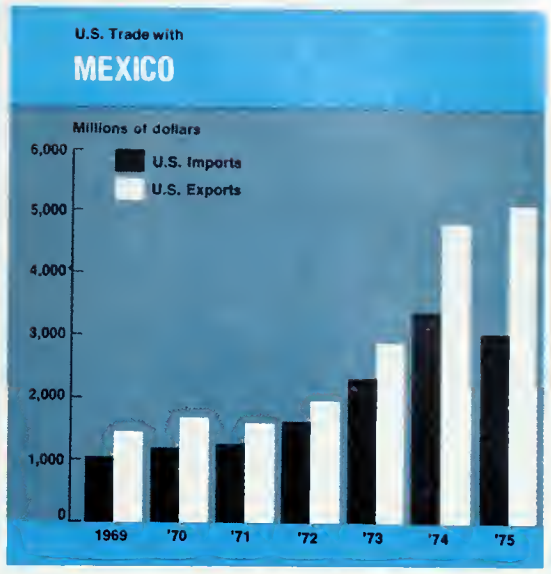
Mexico, the fourth largest customer of the United States, will remain an excellent market for a broad range of capital goods, component parts, chemicals, agricultural products and raw materials. Import controls on luxury and consumer goods continue in force and make it virtually impossible to sell these items there, adds Frederick J. Tower of the Bureau of International Commerce.

Election of Jose Lopez Portillo on July 4 as President, with inauguration on Dec. 1, starts the new six-year administration cycle which appears to be ready to open on a positive note as regards the economy. In a speech just before the election, Lopez Portillo stressed that he proposes a reorientation of the economy to increase production and improve living standards for the masses. Among the needs of Mexico he cited were greater social justice, better income distribution, full employment, increased productivity and an increased supply of foodstuffs and energy.

Based on the Bank of Mexico's first-quarter 1976 figures, Mexico's imports declined by 1.6 percent from the record heights of 1975, while exports grew a healthy 19.0 percent, thus reducing the perennial trade deficit by 19.2 percent. The improved current account benefited also from somewhat higher tourism receipts and re-exports from the in-bond or assembly industry. Short-term capital movement was negative, however, in contrast with the performance in the first quarter of 1975.

The government's budget for 1976 is an important factor in the country's performance for the year. The budget, which includes spending by the federal government as well as the major state-owned enterprises, calls for a 10 percent increase from 1975 to 1976 in expenditures in current prices. When the price rise is taken into account, this represents a small reduction in spending.

Mexico's import substitution policies are an inducement to investment in production facilities in that country. Import licenses are generally denied to products competing with those produced domestically. On the other hand, some concern is being voiced about the investment climate for the private sector, both foreign and domestic. The Mexican Government has tightened controls on majority foreign-owned investments over the past five years. New majority foreign-owned investment is rarely permitted and only as an exception. The same is true for expansion of existing majority foreign-



owned companies. Laws and regulations pertaining to royalties and technology transfers have been tightened and contracts for such matters are subject to government approval. The Law on Inventions and Trademarks entered into effect in February, tightening the Mexican rules on uses of patents and trademarks. This has been a subject of considerable concern to foreign business. Mexico's actions may indicate that it prefers to meet its external capital requirements by fixed-term loans rather than through foreign direct investment.

Private investment plans are uneven, with some sectors, notably chemicals and petrochemicals, iron and steel, food processing and packaging, business equipment and electronics, carrying out sizable expansions. Other sectors have been slower to resume normal investment patterns after the 1975 recession. Investment by government entities has been especially high in the petroleum, power and communications fields. U.S. sellers of equipment and supplies used in the industries named will find an excellent market for their products, as American technology is held in high esteem by Mexican industry and advanced technology is considered a priority import.

Petroleum is recognized as a major favorable factor in Mexico's future. May production of crude oil was 900,000 barrels a day, with a one million barrel per day rate to be reached in the fall. An export level of 200,000 barrels a day is expected by year-end.

To maximize commercial opportunities for U.S. exporters, a program of promotional events is scheduled at the U.S. Trade Center in Mexico City. Currently scheduled for 1977 are exhibitions of automotive maintenance and test equipment, January; agricultural machinery, February; hospital and laboratory equipment, March; plastics production equipment, April; furniture manufacturing equipment, July; electronics production and test equipment, August; water treatment equipment, September.

WEST EUROPE GAINS STRENGTH, BUILDING DEMAND FOR IMPORTS

Recent Economic Trends Are Encouraging

As the economic recovery in Germany and France gains strength and spreads to other European economies, demand for imported goods will increase. As a consequence United States exports to West Europe are expected to increase significantly in 1976. Europe's recovery is several months behind that of the United States and its enhanced import needs will accelerate throughout the rest of the year and extend into 1977, according to J. Robert Wilson of the Bureau of International Commerce.

Since Western Europe was in the throes of recession throughout much of last year, it is remarkable that in 1975 U.S. exports increased as much as they did, i.e., 4.5 percent. The aggregate amount, $30 billion, represents 28 percent of total U.S. exports. Recent economic trends have, on the whole, been encouraging, and earlier forecasts of only modest growth in the major European countries in 1976 have been upgraded.

Inflation remains worrisome throughout Europe. Although the 1974-1975 recession restrained the rise of consumer prices in most countries, it failed to halt them and current increases remain uncomfortably high. Moreover, there is widespread concern that as the economic recovery gathers momentum, inflation will be intensified. Indeed, inflation has already accelerated in several instances.

Although unemployment is no longer on the rise, it too remains serious and the outlook is merely for gradual amelioration over the coming months and even years. However, inflation is generally regarded as the greater evil by policymakers. Accordingly the ministers of the member countries of the Organization for Economic Cooperation and Development (OECD), which includes practically all the industrial countries, agreed at their meeting in Paris on June 21-22 on a strategy for sustained economic expansion that emphasizes the eradication of inflation. The governments aim to achieve an economic expansion which is moderate but sustained.

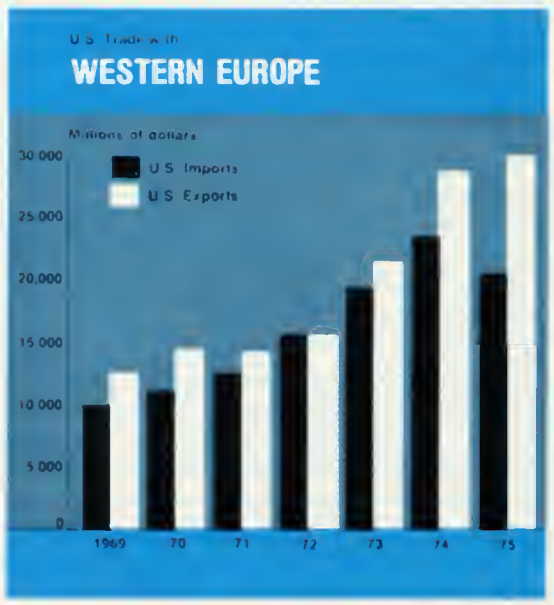
In retrospect it is clear that the German recession, which began in November 1973, ended in the summer of 1975. Since then the process of recovery gradually gathered momentum as domestic demand strengthened. About three-quarters of the previous decline in industrial production has been made up and unemployment, which had exceeded one million throughout 1975, has finally begun to recede. Real GNP is now expected to increase 6 percent in 1976.

France was fortunate in that its recession lasted only half as long as Germany's. Like Germany, it is well on the road to recovery and its GNP is expected to increase by 5 percent in 1976 in real terms, with imports rising 10 percent. Unlike Germany, France may have difficulty avoiding double-digit inflation this year.

The problem of rampant inflation remains serious in the United Kingdom and Italy. In both countries consumer prices are still rising at rates of over 15 percent per year. Some relief, however, is indicated in Britain, at least as far as the costpush component of inflation is concerned. Wage increases have been held in check for one year and a new agreement limiting annual increases to 5 percent has recently been approved. In Italy the situation is clouded by political uncertainty.

Political uncertainty also prevails in Spain and Portugal and is particularly felt in the area of incomes policy and labor-management relations. Over the years the Spanish market has taken on considerable importance for U.S. exporters. Last year Spain purchased $2.6 billion of goods from the United States, thereby accounting for nearly 16 percent of its import needs.

The turmoil in the European foreign exchange markets throughout the first four months of this year seems to have subsided. It will be recalled that in January the Italian lira experienced a sharp fall in value. In March the pound sterling slipped badly and the French franc departed from the EEC's joint float known as the "snake." Several governments intervened heavily in the foreign exchange markets to support their currencies. Parallel to these downward fluctuations, the stronger European currencies, particularly the Swiss franc and the German mark, appreciated further. In May the Italian Government introduced a 50 percent deposit requirement on foreign exchange payments. In June Britain received a $5.3 billion international standby credit. The dollar enjoyed a large measure of stability throughout this hectic period.



Despite severe protectionist pressures resulting from recession-induced unemployment, most of the European governments refrained from imposing serious restrictions on imports. The restrictions that were imposed were either of limited scope or of limited duration. Thus the line was held and the aforementioned June meeting of the OECD governments was also the occasion for the renewal for another year of their Declaration on Trade of 1974. This Declaration is aimed at avoiding restrictions on trade and other current account transactions which could lead to chain reactions and endanger economic recovery.

Aiming for 1977 completion

In their communique the OECD ministers also expressed their support for a successful outcome of the multilateral trade negotiations now taking place in Geneva under the auspices of the General Agreement on Tariffs and Trade. These negotiations are to be stepped up after the summer vacations so that a basis can be laid for the hard bargaining that lies ahead. The agreed aim is that the negotiations be completed in 1977.

The coming months will also see an intensification of the North-South dialogue in the Conference on International Economic Cooperation. This is essentially a dialogue between the consumers and producers of oil and other raw materials from the developing world.

The European Economic Community, which participates in both the GATT negotiations and the North-South dialogue as a unit, has been active in foreign commercial relations in several other ways. On July 6 the Community and Canada signed a broad commercial and economic cooperation agreement. While trade will continue to be carried out on a nonpreferential, Most-Favored-Nation basis, the agreement envisages closer links between EEC and Canadian industries. Earlier this year the EEC signed trade and cooperation agreements with Pakistan, Tunisia, Algeria and Morocco.

The EEC and Greece will shortly begin negotiations on Greece's application for full membership in the EEC; Greece has been an associate member for over a decade. Successful completion of the negotiation and ratification process, which together could take two or three years, would mean that Greece would become the tenth member of the EEC.

BELGIUM

Economic Revival Gets Under Way

The economic recovery that started in Belgium in the autumn of 1975 has accelerated. Bobette K. Orr of the Bureau of International Commerce sees exports and private consumption expenditure as the principal forces behind the recovery.

Industrial activity (excluding building) rose 14 percent between September 1975 and March 1976. The Belgian Government is now forecasting a rise by 2.7 percent in the real GNP for 1976, (compared to a 1.4 percent decline last year to $42.2 billion), while private sources estimate increases of 3 to 4 percent.

Economic expansion, a more competitive dollar vis-a-vis the Belgian franc, and rapidly rising Belgian production costs combine to offer good opportunities now for U.S. suppliers of high-technology and labor-saving equipment, as well as consumer goods.

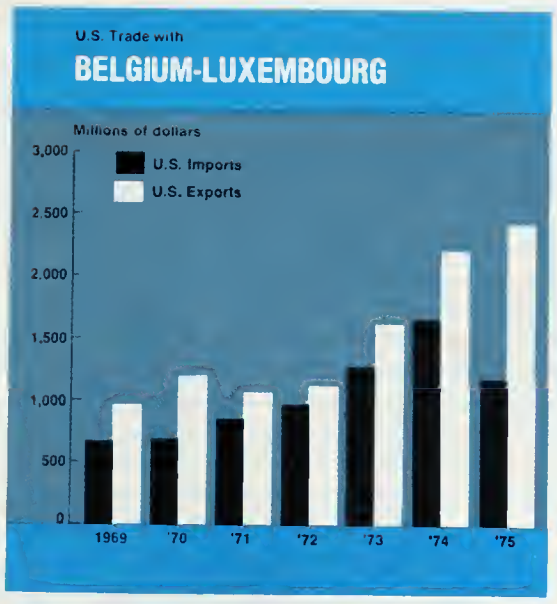
The Belgian Government has announced projections for other important economic indicators for 1976: gross fixed capital formation is projected to go up 1 percent; private consumption is anticipated to rise 2.7 percent and public consumption 4.3 percent; exports should grow 4.8 percent and imports 5.0 percent. For 1976 the Belgian Government predicts that the balance of payments will end up roughly in equilibrium. The government has stated its determination to defend the current parity of the franc, even though it has been under considerable pressure this year.

A strong and balanced cyclical revival in West Germany and the United States is important for prospects in Belgium, due to Belgium's reliance on trade with those countries.

Offsetting this, however, are a number of factors which could slow down the Belgian recovery later this year. A serious question remains as to whether inflation can be slowed below the current rate of 10 percent.

Labor market conditions are another worry. By the end of March 1976 the unemployment rate stood at 8.3 percent of the active population. In addition, there has been no restraint on wage increases. At the end of 1975 gross hourly wages were 18 percent higher than at the end of 1974.

As in most EEC countries, the present strong expansion in private consumption reflects purchases, especially of consumer durables, postponed during the recession. Once the powerful effect of this pent-up demand is over, there is concern about the effects of private consumption reverting to a more moderate rate of expansion. Likewise, industrial production is expected to slacken in the second half of 1976 as the build-up in inventories tapers off.



Foreign investment in Belgium was down by half in 1975 compared to 1974. Total U.S. investment in Belgium was $2.9 billion at year end 1974 and new U.S. investment in current value terms dropped 78 percent in 1975 compared to 1974. Nonetheless, Belgium remains friendly to foreign investment; the country offers, among other things, a highly productive work force, a location in the geographic center of the Common Market, and a well-developed infrastructure.

The Belgian Government is actively seeking to encourage industrial recovery and achieve a reduction in unemployment without refueling the inflation spiral. The Belgian law on economic recovery was passed in March 1976, including provisions to stimulate additional employment, to freeze various types of income, and to liberalize investment incentives.

In April 1976 the government followed up with a Sobriety Plan to curb the rise in its current expenditures by $600 million through postponing programs and ending some subsidies.

The current economic revival in Belgium is a positive development for U.S. exporters. U.S. sales should outpace last year's 6 percent increase in U.S. exports (to $2.4 billion) to the Belgium-Luxembourg Economic Union (BLEU). The BLEU is a remarkably stable market for U.S. products, taking a consistent 2.3 percent share of total U.S. exports every year between 1970-1975.

As Belgian industry rebuilds inventories, there will be fresh demand for U.S. raw materials such as metals and minerals. Labor-saving equipment will be in demand to counteract sharp increases in wage costs. Public works programs indicate demand in public health and educational infrastructure. U.S. suppliers of consumer goods should benefit from the surge in Belgian retail spending.

FRANCE

Economic Recovery Gains Momentum

France is among the top four industrial countries experiencing the strongest economic recovery. The 1974-75 recession is over and 1976 should prove to be a year of strong across-the-board growth, with real GNP projected to grow 5 percent, according to Myra L. Triplett of the Bureau of International Commerce. Industrial production is again approaching the record level set in the fall of 1974. New fixed investment should pick up. Consumer spending should increase about 3 percent this year.

While the franc should remain fairly stable, France may run a small deficit on the trade account, with imports expected to rise 10 percent and exports by somewhat less, about 6 percent. Because of the bright picture for the economy, the outlook in France for U.S. suppliers of equipment, systems and instrumentation as well as consumer goods is very good, and U.S. pricing should remain competitive because wage rates are increasing more rapidly in France than in the United States.

For the French Government, three problems stand out: inflation, the level of unemployment and some uneasiness in the private sector about the handling of the economy, which could hold back expansion in new investment.

Little change in inflation

Inflation in France is currently running at a rate of about 10 percent with no signs of major change. A rate of inflation above 10 percent could easily dampen household consumption, further defer new investment and lead to stagflation in 1977. In order to avoid double digit inflation for the year, fiscal and monetary policy may have to be tightened in the coming months.

Unemployment is currently about 4.3 percent of the labor force, a very high level by French standards. While the unemployment peak has probably been passed, investment will have to expand much more rapidly than at present in order to restore the customary level of 2-3 percent.

Uneasiness about the government's economic policy goes back to decisions made two years ago. In the spring of 1975, there was a consensus that measures should be taken to stimulate the economy; opinions varied only as to the degree of stimulation needed. Instead, the franc rejoined the EEC monetary "snake" in May 1975, a move that meant inevitably continuing a tight monetary policy. France's recent withdrawal from

the "snake" in March 1976 after only ten months was regarded as a retreat from the earlier policy.

The French Government has approved an investment program worth some $46 billion encompassing about 25 major projects aimed at continuing economic growth over the next five years. A major portion of the program is devoted to upgrading the French telecommunications system. Other projects include the development of the Rhine/Rhone waterway system, measures in favor of the agricultural sector and coast preservation programs.

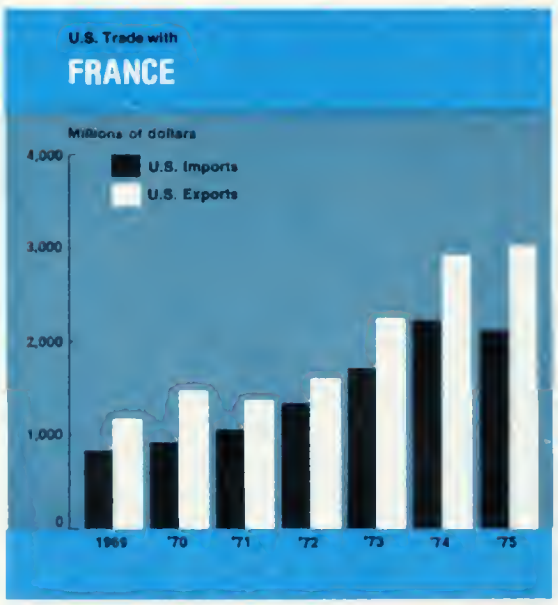
The government is also undertaking some economic reforms but their ultimate success is doubtful. The reform of the capital gains tax, when eventually passed by the Senate, is likely to be so modified that it will affect relatively few people and raise only some $250 million a year.

Continued expansion expected

Continued expansion in French output is expected, especially in the intermediate goods sector. Inventories of finished goods are down sharply, unfilled orders are up, deliveries are continuing to outpace production and new orders are increasing. Overseas orders are reviving, but at a slower pace than domestic demand.

The greatest potential for U.S. products is for computer related and telecommunications equipment, electronic components, security equipment, pollution control equipment, construction equipment and materials. Consumer goods also have good potential, especially textile products, toys, leisure equipment and household wares.

To this end, the U.S. Trade Center in Paris will sponsor exhibitions on building and construction equipment and supplies in October; telecommunications equipment in November; and pet products, microwave equipment and business equipment in January 1977.



GERMANY

U.S. Has Become 4th Ranking Supplier

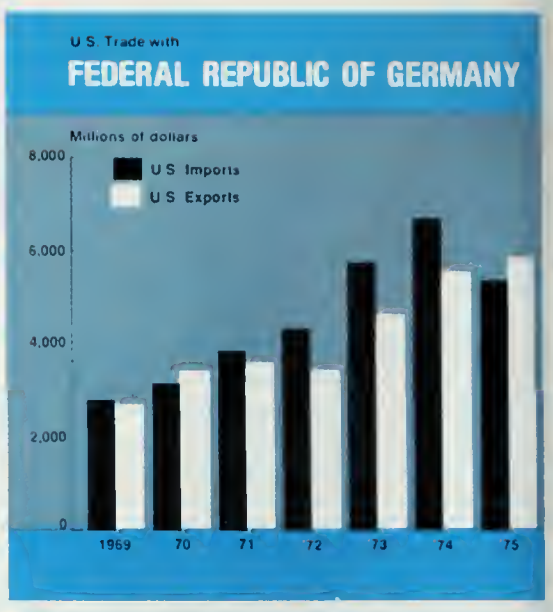
With U.S. exports to Germany (c.i.f.) during the first quarter of this year totalling $1,728 million, up from $1,416 million a year earlier, and with the U.S. percentage share of the German import market at 8.6 percent, the United States has displaced Italy as Germany's fourth ranking supplier, after the Netherlands, France and Belgium-Luxembourg.

While overall German imports in the first quarter rose 23 percent, imports from the United States rose 27 percent, giving the United States a bilateral trade surplus with Germany of $391 million, almost as large as the surplus of $439 million for all of 1975, reports Velizar Stanoyevitch of the Bureau of International Commerce.

Contrary to popular assumptions—buttressed by the current drought in Europe—that U.S. agricultural exports together with exports of raw materials spearheaded this expansion, U.S. agri-exports in fact declined. What contributed substantially to these impressive first quarter results were sales of finished manufactured products, non-ferrous metals, lumber, wood pulp, crude oil derivatives and bituminous coal.

Preliminary data on the composition of U.S. machinery exports to Germany indicate a very strong competitive position of U.S. exporters of machine tools, paper and printing machinery, materials handling equipment and food processing machinery. Electronic production and test equipment could be expected to capture a lion's share of the German import market. Exports of laboratory instruments, pollution control and measuring equipment, especially for air and water purification and certain types of energy systems, such as solar, are also likely to continue rapid growth.

With Germany staging an impressive recovery from the most severe economic recession of the post-war period, the prospects for the balance of the year appear much more favorable than a year ago, when Germany was still in the throes of the recession, with more than 5 percent of all wage and salary earners jobless and real GNP down 2.5 percent. The markedly higher rates of inflationary price increases in principal competitor countries and remarkably stable Dollar-Mark rates of exchange should enable the United States to improve substantially upon an already impressive record achieved last year, when the United States accumulated a bilateral trade surplus of $439 million, compared to a deficit of $1,310 million in 1974.



The process of recovery which began in mid-1975 appears to be gaining momentum and forecasts of real GNP growth rate for this year have been revised upward from 4 to 6 percent. Unemployment is finally starting to recede from peaks reached earlier this year and is now under the million mark for the first time since December 1974. The bulk of wage settlements have been close to the anticipated and actual rise in the cost of living this year of about 5 percent. Industrial plant utilization has risen to 83.3 percent of capacity in the first quarter of this year, compared to 78.7 percent in the second quarter of last year.

Last year witnessed a historic change in the direct investment flows between the two countries, with German direct investments in the United States exceeding the reverse capital transfers from the United States to Germany. The number of German visitors to the United States is still less than the number of U.S. tourists in Germany, but the former average longer stays and spend more.

Business and investment climate in Germany remains very favorable. Recent parliamentary approval of labor party codetermination on supervisory boards of corporate enterprises employing 2,000 or more is generally expected to guarantee labor peace, without jeopardizing traditional management prerogatives. The new corporate income tax provisions which go into effect next year, raising the basic tax rate from 52 to 56 percent, will probably have the effect of placing foreign direct investors at a comparative disadvantage by, in effect, allowing only resident investors a tax credit on dividend income.

The Commerce Department's trade promotion program in Germany for the remainder of this calendar year includes sponsorship of group exhibits by U.S. manufacturers at international trade fairs in Cologne and Munich. In October, a micro/mini computer exhibit is scheduled at the Frankfurt U.S. Trade Center.

ITALY

Industrial Production Is Stepping Up

Despite the current deposit regulation on imports, U.S. exports to Italy should be able to maintain or slightly improve their 8.7 percent market share of 1975, about $2.9 billion. Ann Corro of the Bureau of International Commerce predicts that U.S. exports should increase as industrial production continues to pick up in Italy.

Prospects for 1976 are viewed as moderately improved for Italy. After a negative growth rate in 1975 of 3.7 percent, expectations call for a positive GNP growth rate of 1 to 2 percent in 1976. Industrial production dropped by 10 percent in 1975 but a slight upturn in the last quarter of 1975 signifies a bottoming out of the recession last summer. By April 1976, industrial production was up 5.9 percent over the year before.

In comparison with the previous year's trade performance, Italy's trade balance in 1975 improved tremendously to attain the government's goal of a non-oil trade surplus. Reducing 1974's $10.5 billion trade deficit to $3.5 billion in 1975 is illustrative of this fact.

The ability of Italy's economy to effectively shift from slack domestic demand during its recessionary period into an increase of 2.3 percent in the export sector was quite an achievement, considering a world dip in import volume of 6 percent. Also, Italy's overall balance of payments position was more than halved from a $5.5 billion figure in 1974.

Contract negotiations involving ten million workers out of a total workforce of some 19 million are being concluded in 1976. Another period of turbulent labor clashes, as in 1969, over labor demands has not materialized. Unions are concentrating on job creation and job security rather than wage hikes in an effort to reduce a current 6 percent rate of unemployment and underemployment.

To stem the continued fall in the Italian lira in April, resulting mainly from a lack of political confidence in the Italian Government's ability to solve its economic problems, a 50 percent prior deposit requirement was imposed on May 6, for virtually all purchases of foreign exchange for imports, except wheat, service payments and capital movements. The deposit is to be held for 90 days in a non-interest-bearing account with the Bank of Italy. This requirement has been extended through Nov. 3.

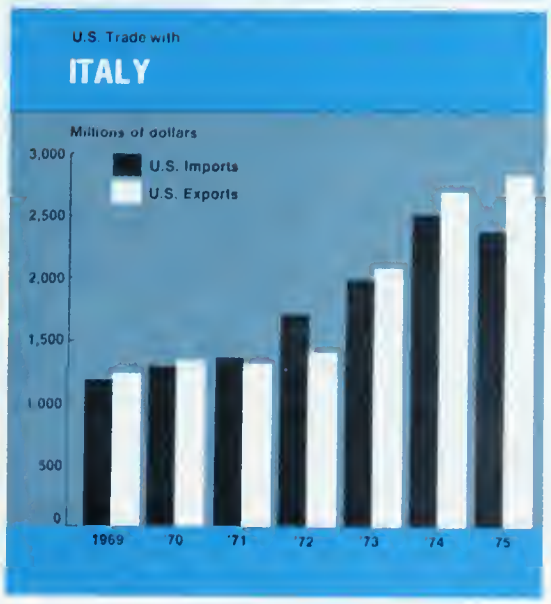
As a practical matter for importers, given the present interest rate structure on short-term financing, the cost of an imported item is, in effect, increased by 2.5 percent. As a result of tight monetary policies being undertaken, the lira has considerably improved against major currencies, including the U.S. dollar. It is currently fluctuating near 850 lira to the dollar from 900 lira before the deposit regulation was imposed.

In an effort to alleviate problems of high labor and social welfare costs and lagging technology, and to restore a sound financial base for business investment, the government has proposed a series of priority investments, designed to restructure Italian industry in a medium-term economic package to be implemented over a 3 to 5-year period. The plan calls for increasing productivity through encouraging greater labor mobility from moribund industries to potential growth industries, as well as more spending for capital investment and research expenditures to create modern and technologically competitive industries.

Generally, U.S. high-technology, labor-saving machinery and equipment have the best sales potential in Italy. With the cost of Italian labor in terms of productivity higher than other European countries, Italy must move toward more capital-intensive production to maintain international competitiveness.

U.S. equipment areas of particular promise include computers; equipment for the development, expansion and modernization of ports and airports; water pollution control equipment; process control equipment; security equipment; energy-generating equipment, especially related to nuclear and alternate energy sources; and electronic components and production equipment.

The U.S. Trade Center in Milan will be sponsoring the display of American products in the following exhibitions: equipment for the chemical industry in October, engineering design components in November, and a variety of other products next year. An avionics and airport equipment technical sales seminar will be held in Rome in January 1977.



NETHERLANDS

Recovery Begins From Recession

The Dutch economy is moving out of a recessionary period, but the structural problems of unemployment and inflation still remain, reports Bobette K. Orr of the Bureau of International Commerce. After registering a decline in its GNP during 1975 (to $80.4 billion), the Dutch economy is expected to show a steady expansion over the next two years, attaining an average annual real growth of 3.5-4 percent.

A major stimulus for this favorable trend is the upswing in the economies of the Netherlands' major trading partners—particularly West Germany and the United States. As a result, the Netherlands should continue to run a substantial balance of payments surplus, growing from $1.6 billion in 1975 to $2.2 billion in 1976 and $3.6 billion projected for 1977. At the same time, 1976 promises to be a good year for U.S. exports to the Netherlands.

Despite the strong external position of the Dutch economy, the country still has serious internal problems. Price inflation is expected to decelerate only moderately from the 10 percent rate of 1975. Likewise, unemployment may not decline at all from its present high of 5.5 percent.

In order to tackle this situation, the Dutch Government published on June 10 its medium-term economic policy white paper entitled "Selective Growth," the key to which is a government commitment to spend $5.4 billion in the period 1977-1981 to support job-creating investment.

The government projects that investments by trade and industry should rise by 5 percent in 1977; the wage increase would total 1.5 percent (versus 8.5-9 percent in 1976); and the price rise would be 5.5 percent (versus 7.5-8 percent this year).

In charting the course for the future of the economy, the Dutch Government has proposed two pieces of legislation which are currently before the parliament. One is a bill which would remove management representation from company Works Councils and would vastly broaden the powers of Works Councils.

The second proposed law provides for excess profits sharing (VAD), whereby companies operating in the Netherlands would pay 10 percent of any "excess" profits (above a normal return on capital and a risk premium) into a national fund to be administered by the trade unions.

These two bills are causing considerable uncertainty within the Dutch business community. Concern has been ex-

pressed that they will adversely affect industry at this crucial time when it is just pulling out of a recession and that the laws would also seriously detract from Holland's traditionally favorable investment climate and thus discourage foreign enterprises from investing there.

U.S. investments in Holland reached $3.2 billion in 1974, up from $2.35 billion in 1973. A major part are in the petroleum and processing industries.

The Dutch Central Planning Bureau is anticipating that world trade will rise 6 percent in 1976. Concurrently, Dutch exports are expected to rise 8.5 percent above the $30.5 billion figure for 1975, and imports will rise 7.5 percent above the $30.6 billion 1975 figure.

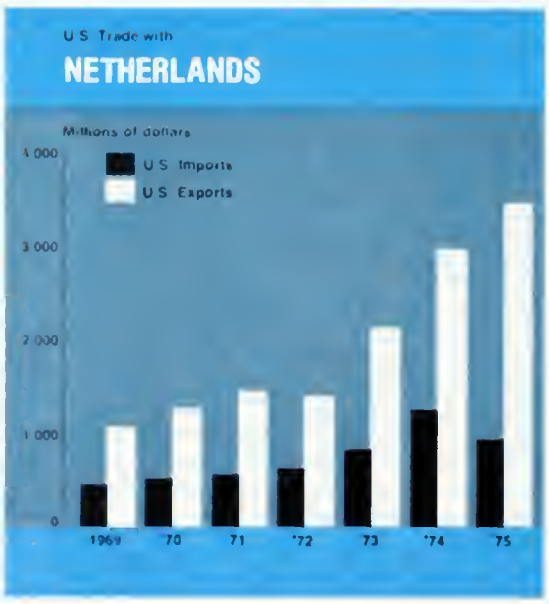
The outlook for U.S. exports to the Netherlands remains good. Sales of American goods should do even better than last year as the Dutch economy recovers.

The major growth will come in sales of industrial goods, particularly machinery and transportation equipment. Due to increasing labor costs in the Netherlands, labor-saving equipment and products embodying high technology also should be favored.

With U.S. prices becoming more competitive, and with U.S. styles becoming more accepted in Holland, sales of American consumer goods will also continue to expand rapidly.

U.S. agricultural exports to the Netherlands set a record of $1.7 billion in 1975. The Netherlands thus became the second largest market, after Japan, for U.S. agricultural commodities. Due to a gradual weakening in world prices, however, 1976 exports may register a slight decline.

U.S. manufacturers of electronic components will have an excellent opportunity to explore the Dutch market by participating in a Department of Commerce sponsored catalog exhibition at the FIAREX International Trade Fair in Amsterdam, November 20-25.



SPAIN

Recession Is Seen Continuing In 1976

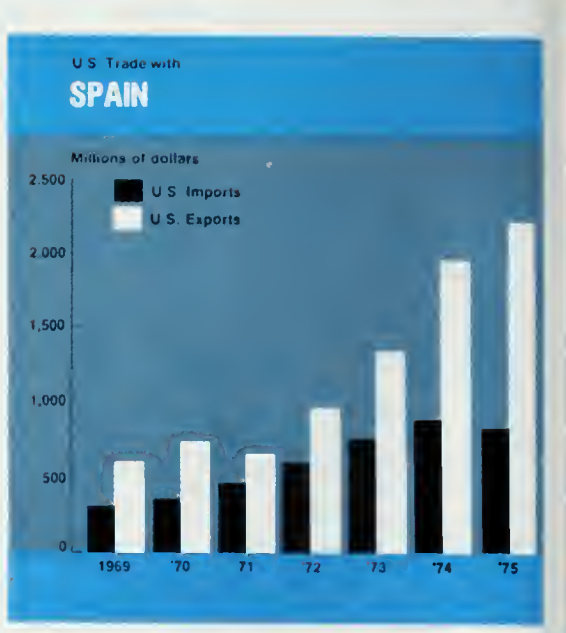
U.S. exports of equipment and materials should experience some growth in the Spanish market during 1976, especially in those sectors where substantial U.S. investment and/or technical assistance is planned: energy systems, transportation/avionics, chemicals and computers. Roger Turner of the Bureau of International Commerce reports that in other sectors, however, decreased consumer demand, lower capital equipment imports, and export expansion continue, as Spain remains enmeshed in its worst recession in nearly 20 years.

Recession, several months late in reaching Spain, is now forecast to bottom out much later than originally anticipated. It may be some time before Spain can expect to benefit from increased demand in West Europe and the United States, its major export markets. Continued inflation of some 17 percent, an unemployment rate of approximately 6 percent, labor unrest over low wages and a sharp rise in the cost of living limit the potential for significant real GNP growth at this time; at best, no more than a 2 percent increase can be expected by the close of 1976.

Businessmen remain confident that Spain can continue its efforts to modernize or develop its industrial and agricultural sectors, always mindful that the ultimate objective, circa 1985, is full-fledged membership in the European Community. To achieve this objective, and concomitantly to finance its 1975 balance of payments deficit of some $3.5 billion, Spain must continue to rely upon foreign borrowing and to encourage direct foreign investment.

Recently, long-term foreign capital inflows have slowed. Several multinational firms and their Spanish counterparts have delayed investment decisions as a result of the recession and, to a degree, to get a better idea of political developments inside Spain. Knowledgeable observers maintain that positive political changes have and will continue to take place in Spain which augur well for its future economic development.

Official c.i.f. import figures for 1975 show that Spain's import market grew to an all-time high of some $16.3 billion or a 6 percent increase over the previous year; actual increase in the volume of imports was only 3 percent for the corresponding period. Approximately 23 percent of total imports was accounted for by crude petroleum, emphasizing once again Spain's urgent need to develop alternative sources of energy.



For the first half of 1976, U.S. suppliers continued to retain their 16 percent share of the Spanish import market. There is every indication this pattern will continue in 1977, as Spain welcomes direct U.S. investment and technological assistance to see it through economic recovery in the near term and, equally important, to help it develop greater export capacity for the longer term.

Spain's current economic situation and the continuing need to generate greater export earnings are graphically illustrated by the fact that its exports, some $7.7 billion in 1975, paid for barely one-half of the nation's imports, with the resulting deficit having to be offset by invisible earnings from tourism (some $3.4 billion), Spanish foreign worker remittances (some $1 billion), direct foreign investment (less than $500 million) and by foreign borrowing (some $1.6 billion).

Imports declined 10 percent during the first half of 1976, reflecting the 11 percent devaluation of the peseta in February and an overall 16 percent decline in its value since then. This depreciation in the peseta should eventually enhance Spain's trade outlook. Reserves, by the close of 1976, should still be well in excess of $5.5 billion.

Best prospects for U.S. suppliers include consumer goods—women's sleepwear, children's clothing, cosmetics, and housewares — and capital equipment which can help to offset steadily increasing labor costs. Included in the latter are food processing and packaging, metal working, health care, laboratory instrumentation, computers/business systems, and process control instrumentation.

To assist suppliers, Commerce will sponsor the following promotional events: consumer goods display, September; electronic components catalog exhibit and technical sales seminar on energy systems, October; food processing and packaging catalog exhibit, May '77; and laboratory/process control instrumentation exhibition, October '77.

SWEDEN

Despite Slow Recovery, U.S. Products Needed

The Swedish economy, while buffeted by weak international demand for its products through most of 1975, entered the current year in relatively good condition, according to Albert Caya, Jr., of the Bureau of International Commerce. Due largely to the government's employment-maintaining anti-cyclical actions, unemployment averaged just over 2 percent for the year. Investment and production were maintained at relatively satisfactory levels due largely to government stock-building loans and encouragement of foreign borrowing.

Export markets strengthened for the forest products industries in late 1975 and through the first half of 1976. The engineering industry suffered export sales set-backs commencing in mid-1975 which continued well into the first half of 1976. Moderate to good recovery, however, is expected in this sector as the second half of 1976 progresses. This growing strength in international markets makes the economic situation brighter than was generally expected six months ago.

In real terms, Sweden's foreign trade in 1975 was virtually stagnant. Imports increased in value by 7 percent from $15.8 billion in 1974 to $18 billion in 1975. A substantial portion of this increase may be ascribed to price increases and exchange rate fluctuations.

Exports totaled $17.4 billion, as compared with $15.9 billion in 1974 or a 2.4 percent increase. Swedish export prices increased significantly during the year, however, and the volume of exports actually declined.

While sales prospects for Sweden's export industries are improving, several problems remain to be solved. One of these is the large current account deficit facing the nation. The deficit on current account reached $1.5 billion in 1975 as compared with $1 billion in 1974. To finance the deficit and to maintain liquidity in the economy, industry was encouraged to borrow heavily in international capital markets. The loan inflow amounted to $2.5 billion which covered the current account deficit and added $1.3 billion to Swedish foreign exchange reserves.

In the current year, exports are forecast to rise 6.5 percent by volume while imports are projected to increase only 1.3 percent. Based on these forecasts, a surplus of approximately $250 million is anticipated in the trade account. The current account, however, is projected to show a year-end deficit of between $700-$1,000 million.

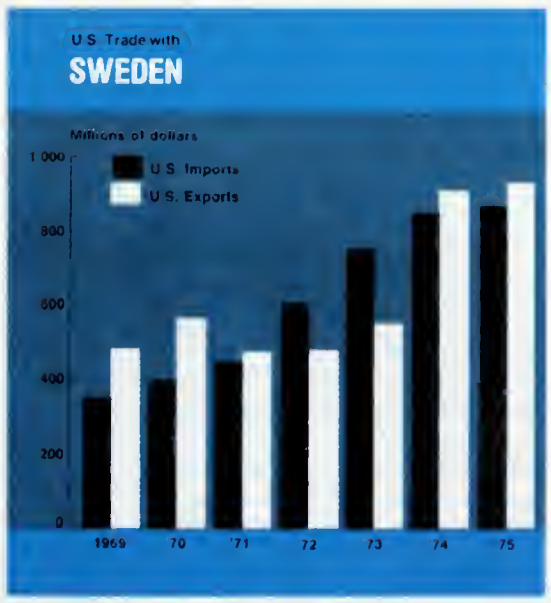
Thus, faced with current account deficits totaling $3.5-$4 billion for the three-year period 1974-76, the government anticipates that it will be 1980 before balance is achieved.

Industrial investments in 1976 are estimated to total about $3.4 billion. This represents a $112 million increase over 1975. In real terms, however, it represents a decline in volume of between 2 and 5 percent. The major portion of the decline is expected to be in the building sector. Investment in the steel industry, mining and public utilities is expected to increase somewhat, whereas a decline is projected in the engineering industry.

In 1975, Sweden's rate of inflation was approximately 10 percent. In the current year, the government is projecting a 7-8 percent increase in the consumer price index. However, faced with a 40 percent increase in the cost of labor (wages and contributions to social benefits) over the 1975-76 period, it may prove difficult to hold the cost of living to the projected level. This fact worries both the government and industry, since increased wage demands and sagging productivity are likely to drive unit costs sharply upward and decrease Sweden's competitiveness in international markets.

There will be good sales opportunities for U.S. products in Sweden in 1976 despite the relatively slow pace of recovery anticipated this year. Among products that are expected to continue to do well are: computers and peripheral equipment; electronic components and production and testing equipment; industrial process controls; building/construction machinery and supplies, and high quality consumer goods.

The United States maintains a Trade Center in Stockholm designed to promote U.S. export sales throughout the Nordic Area. Major exhibitions scheduled through the remainder of 1976 are: industrial safety and security equipment, Nov. 8-12; and pollution control equipment, Dec. 6-10.



SWITZERLAND

U.S. Exports Competitive Despite Recession

In the first half of 1976 the demand for Swiss products decreased to a lesser extent than a year ago. This may indicate an early end to the recession and economic recovery starting in the second half of 1976, according to Leo Kuus of the Bureau of International Commerce.

In 1975 Switzerland experienced its most serious recession since World War II. Due to the weakening of foreign demand and a decline in construction activities, the GNP declined in 1975 in real terms by 7 percent. For 1976 a modest increase of about 1 percent is predicted.

In the first quarter of 1976, industrial production showed a 1 percent increase over the same period a year ago. Higher rates were achieved in the chemical industry, while construction has remained the most depressed industry in Switzerland. Within a few years the contribution of industrial and residential construction to the GNP has declined from about 20 percent to less than 10 percent. In view of the large number of vacant apartments and Switzerland's zero population growth, the construction industry is undergoing restructuring. Other Swiss industries are also adapting themselves to new conditions and are adjusting their production accordingly.

Nevertheless, in a period of worldwide recession Switzerland is relatively better off than most other developed countries, having one of the lowest rates of inflation and unemployment as well as the highest income per capita in Europe.

At the end of June, consumer prices had increased on an annual basis by only 1.1 percent. The appreciation of the Swiss franc, which had a moderating effect on import prices, together with the stagnation of wages and decrease of domestic demand had contributed to the easing of inflation.

The appreciation of the Swiss franc has been the most important factor affecting the U.S. competitive position in the Swiss market. Over a five-year period, beginning in May 1971, the Swiss franc has appreciated with regard to the dollar by about 70 percent. This means that if exchange rate changes had been passed on to end-users, U.S. imports in the Swiss market should now cost some 70 percent less than five years ago.

Of course, the appreciation of the Swiss franc has also affected import prices of similar goods from other countries. Also, price advantages favoring U.S. imports have to some extent been offset by the proximity of EEC and EFTA countries to the Swiss market, their techno-

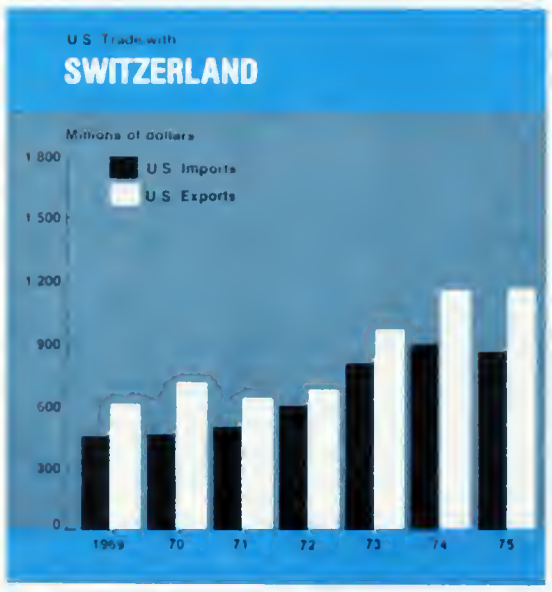
logical and marketing competitiveness, and by the absence of tariff barriers or the existence of very low ones. However, the zero tariffs between EFTA countries and 80 percent reductions in tariffs which prevail at present between Switzerland and the EEC countries according to the Free Trade Agreement of 1972 are not significant because the reduction is based on low Swiss tariffs.

In the first five months of 1976, U.S. exports to Switzerland have decreased by about 11 percent, while imports from Switzerland have increased by 19 percent compared to the same period a year ago. The decrease of U.S. exports to Switzerland reflects a decline in aircraft shipments rather than recessionary trends in the Swiss economy. The overall effect is, however, that the U.S. market share has declined from 8.3 percent in January-May 1975 to 7.0 percent in 1976.

Despite the recession Switzerland continues to be a good market for high-technology items. There is a need for pollution control and filtration and purification equipment, industrial production control instrumentation, security systems and for electronic data processing and automated business equipment.

Department of Commerce trade promotional activities include a catalog show on hardware, tools and household goods at Interferex in Basel in September.

For the next seven years U.S.-Swiss trade will to some extent be affected by the Memorandum of Understanding which was signed by the two governments a year ago. The agreement refers to compensatory purchases of Swiss goods which U.S. companies benefiting from the sale of U.S. military aircraft to Switzerland are supposed to make in Switzerland. Offset purchases are scheduled to amount to 30 percent of the cost of the aircraft, estimated to be over $500 million. For this purpose the U.S. Government is prepared to waive customs duties for relevant imports from Switzerland and grant exception from the Buy America clause.



UNITED KINGDOM

Recovery Proceeding Despite Inflation

U.S. exports of industrial goods to the United Kingdom in 1976 should equal or exceed the level reached in 1975, as the British economy moves out of the depths of recession and both exports and business confidence rise. Industrial production is on the upswing and a new government-labor agreement holding down wage increases for the coming year augurs well for the future, adds Paul A. Norloff of the Bureau of International Commerce.

A modest economic recovery is expected by most observers for the remainder of 1976 with the pace accelerating in '77.

Inflation continues to be the main problem, as rates in the United Kingdom continue at levels higher than in all other industrial countries except Italy. Government efforts have been successful in reducing inflation from an average of over 24 percent in 1975 to about 14 percent in mid-1976.

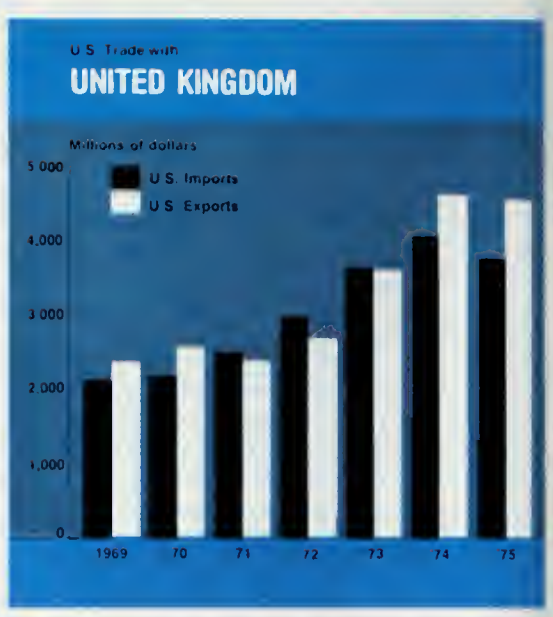
The prime factor in reducing inflation to current levels was the August 1975 introduction of a 6-pound-per-week maximum annual wage increase. Now that this program has been followed by a new agreement limiting wage increases during August 1976-July 1977 to a maximum of 5 percent, prospects for further substantial reduction in inflation seem bright.

Investment during 1975 dropped by about 14 percent, and has been expected to decline further during 1976. Presently the outlook for new investment is brighter than expected, with the main impetus coming from expanded exports and inventory rebuilding.

The gross domestic product, which declined by about 1.6 percent in 1975, will probably show a modest growth of between 1.5 and 2.5 percent during 1976 as a whole. Consumer expenditure is expected to contribute little to this development since disposable income will be substantially squeezed by a second year of wage restraint, but tax cuts tied to the government-labor wage agreement and reduced value added taxes on many consumer durables may give a boost to retail sales in the second half of 1976.

Business confidence, which had reached a very low level during 1975 as a result of high inflation rates, escalating wages, declining order books, rising materials costs and rigid controls on prices, is now showing a substantial upswing owing to the reduction in inflation rates, controls on wage hikes, growing order books for exports and indications that price controls may soon be modified.

Business confidence was also given a boost by the government's new policy on



aid to industry, first announced last November, under which the highest priority is to be given to providing funds for new industrial investment, re-establishing the profitability of industry, and concentration on channeling aid to sectors most likely to prove viable over the long term.

After posting a current account deficit of 3.7 billion pounds in 1974, marked reductions in both the oil and non-oil deficits in 1975 reduced the current account deficit for last year to only 1.7 billion pounds. The general consensus among observers is that the deficit for 1976 will be close to this level.

U.K. imports from the world in 1975 were valued at $48.5 billion, an increase of 3.9 percent over the 1974 level. Imports from the United States in 1975 increased 3.5 percent to 9.7 percent of total U.K. imports. U.K. exports to the world in 1975 reached $39.9 billion, up 19.8 percent from the 1974 level. Exports to the United States in 1975 amounted to 8.9 percent of total U.K. exports, and were almost exactly equal to the amount exported to the U.S. in 1974.

As was the case in 1974, the United States in 1975 ranked as the most important supplier and the most important market for the United Kingdom. The U.S. share of the U.K. market remains close to 10 percent.

On January 1, 1976, United Kingdom tariffs on industrial goods from other than Community members were aligned to 20 percent of the difference between original U.K. tariffs and the Community's Common External Tariff. The final adjustment will be made on July 1, 1977, leaving the applicable U.K. tariffs equal to the EEC's Common External Tariff.

The United States Trade Center in London will stage an exhibition of packaging and bottling equipment in September, and another featuring laboratory instruments for science and technology in November. In December, a trade fair featuring oilwell equipment will open in Birmingham.

AUSTRIA

Import Demand Swelling As Activity Resumes

Economic activity in Austria was rather slow in January of this year, but gained some momentum during February and March. Gertrude Oppolzer of the Bureau of International Commerce expects the pace to continue accelerating during the remainder of 1976, thus resulting in a 2.5 percent real gain in GNP for the year. In 1975, real GNP declined by approximately 2.5 percent.

The Austrian Government plans to continue its policy of stimulating the economy by allocating substantial investments in the country's infrastructure and by offering assistance to export activities.

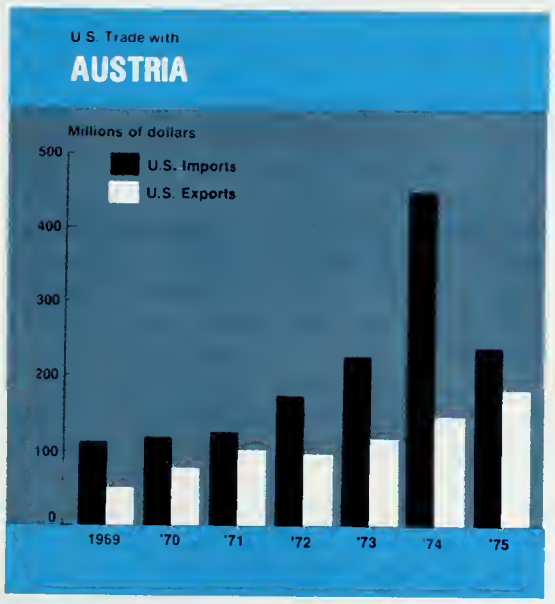
Exports to the United States declined by approximately 14.9 percent during the first quarter of 1976 as compared to the same quarter of 1975. Imports from the United States increased by 7 percent. The present U.S. share of the Austrian import market is only 2.9 percent.

Generally, Austria's exports increased very slowly through the first quarter of 1976. Main increases were reported in exports to OPEC countries and to a lesser degree to the EEC. Imports rose rapidly and Austria's balance of trade deficit amounted to $710 million, up from $550 million a year before.

Taxes, public utility prices and other pertinent fees have increased, and private consumption will grow rather moderately. Real growth rate for the first quarter of 1976 was 0.4 percent. Every effort is being made to keep inflation down to 7 percent for the year. Unemployment was about 2.4 percent at the end of March and may stay at that level since the number of foreign workers has been further curtailed.

In spite of Austria's current economic difficulties, the country offers a good market for many American products. Due to the favorable dollar/schilling rate, interest in American consumer goods has been increasing, as evidenced by a number of inquiries received during the first quarter. A Department of Commerce-sponsored promotion of American consumer goods is being planned with a large Austrian department store for the spring of 1977.

Austria's tourist industry has been growing and the market is attractive for exporters of hotel and restaurant equipment and supplies as well as for manufacturers of food processing and packaging machinery. There is also a favorable market for business machines and office equipment; building materials and equipment; printing and graphic arts machinery and equipment; and electronic pro-



duction and test equipment as well as components.

Austria has about 140 cooperative agreements with East European countries, varying from licensing agreements to capital participations and cooperation in the supply of goods to third countries. These offer opportunities for U.S. firms to enter the East European and Near Eastern markets as subcontractors to Austrian enterprises in that area.

Austria, as a country with a relatively stable economy and sound government, is a favorable investment site.

DENMARK

Outlook Improving, New Orders Received

The outlook for the Danish economy is considerably improved over last year, reports Philip Combs of the Bureau of International Commerce. Industrial production—spurred by expanded output in the consumer and capital goods sectors—is expected to grow by about 5 percent in 1976.

In the wake of an overall production drop in 1975, businesses in early 1976 were beginning to increase inventories and new orders were on the upswing. Industrial turnover in January was 7 percent higher than the year before. In the first four months of 1976, the Danes imported $3.9 billion worth of goods, 30 percent more than in the same period in 1975. This augers well for U.S. exporters of industrial products who maintained their hold on the Danish market in 1975.

Total industrial production fell by 9 percent in 1975, as sales declined and businesses drew down inventories. Unemployment, averaging 11.2 percent of insured employees (compared to 5.2 percent in 1974), was the highest since 1952 and is expected to decline to about 9 percent in 1976. The decline in unemployment is expected to parallel rising productivity and production in industry.

Signs of economic upswing include new orders received in January, up 15 percent from the preceding year, and industrial turnover which was 10 percent greater from November 1975 through January 1976 than in the same period a year earlier.

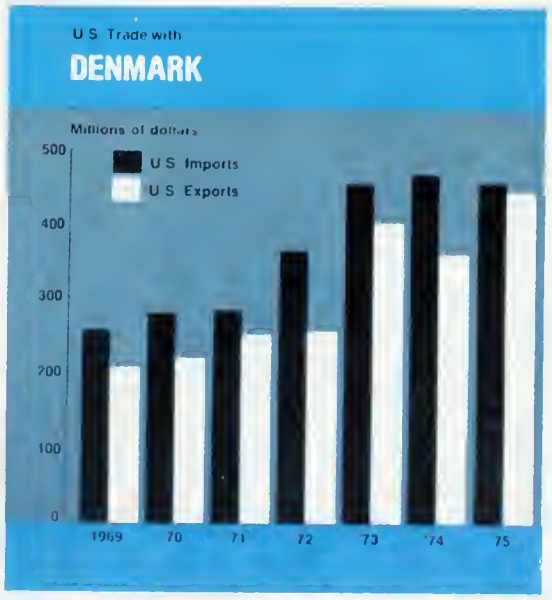
As the Danish economy is heavily export oriented ($8 billion worth of goods were exported in 1975, one quarter of GNP), forecasts of accelerating recovery during 1976 are linked to expectations of rising international demand. Domestically, long-term stabilization of wages and prices is seen as the key to recovery.

Several recent stimulative government measures, income and sales (VAT—from 15 percent to 9.25 percent from October 1975 through February 1976) tax reductions in the last quarter of 1975, led to a rise in consumer demand, with retail sales jumping 16 percent last October. In the depressed homebuilding sector, where production dropped by half in early 1975 from a peak rate of 70,000 units per year in mid-1973, recovery was aided by mortgage rate reductions from 18 percent to 13 percent, easier loan terms, and a moderated rise in costs.

The expansion of private consumption in the last quarter of 1975 led to a considerable deterioration in the balance of trade, which showed a deficit of $1,549 million for the year. Imports from the United States in 1975 accounted for 6 percent of the total import market.

The satisfactory performance of U.S. industrial goods exporters in 1975 points to the value of continued sales efforts in the Danish market and the even greater potential to be offered in 1976 as the market continues to expand.

Best sales prospects: instruments, electrical equipment, nonelectrical machinery, metal goods, construction plywood elements, retail-packed pharmaceutical goods, plastic raw materials, paper products, and high quality consumer goods.



FINLAND

Late Recession Blow Deflates Import Demand

The current outlook for the Finnish economy is mixed at best. The international recession, while comparatively late in reaching Finland, dealt a severe blow to exports of its domestic forest products industry. Despite some strengthening of export markets for wood and paper products, no substantial increase in industrial activity is expected by Albert Caya, Jr., of the Bureau of International Commerce, until late this year or the first half of 1977.

Efforts to rectify the large balance of payments deficits of 1974-75 ($2.1 billion in 1975) led to the imposition of tight credit policies by the Bank of Finland, as well as to the institution of prior deposit requirements ranging from 5-30 percent on a substantial segment of imports. These actions, commenced in early 1975, together with flagging investment demand, have reduced imports substantially. In the first quarter of 1976, imports totaled $1.7 billion as compared to $2 billion one year earlier.

Finnish imports from the United States traditionally contain a high proportion of capital equipment, OEM supplies, and industrial instrumentation and control equipment. Thus, until an upturn in economic activity triggers a more favorable investment climate and less strict credit controls, U.S. exports to Finland are not likely to increase substantially in the months ahead.

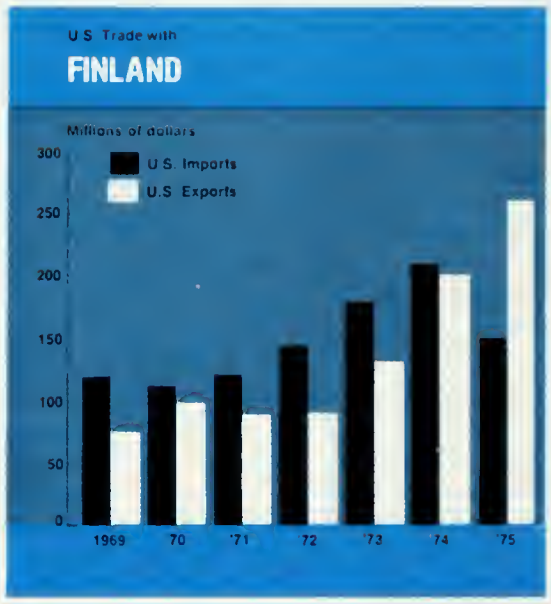
Gross domestic product fell by one-half of one percent in 1975 following a decade of growth. With capacity utilization in the forest products' industries running at about 70 percent and orderbooks shrinking in the metalworking industries, GDP is not expected to recover the ground lost in 1975 until later this year or early 1977.

Probably the most troublesome problem facing the Finnish economy is the high level of inflation, which reached 17.5-18 percent last year. Money wages increased by 22 percent in 1975, and real wages by 4-4.5 percent. Wage settlements negotiated in the first quarter of this year were restrained by comparison and it is likely that inflation will be held to around 10-12 percent. Real wages are therefore not likely to improve. This may cause labor unrest this autumn when a review of pay scales is due.

Equally burdensome are the hidden social costs which add an additional 45 percent to the wage bill. With the total cost of labor rising rapidly and no corresponding increase in productivity anticipated, price competitiveness in international markets is threatened.

The United States ranked as Finland's fifth largest trading partner in 1975 with a 5.5 percent market share. January-March 1976 figures show the U.S. position weakening to 5.1 percent.

The growing significance of the export-oriented metalworking industry and a budding but technically strong electronics industry make Finland an interesting market for a broad range of components and supplies. These products cover metalworking and finishing equipment, process control instrumentation and equipment, pollution control equipment, electronic components and electronic production and test equipment.



NORWAY

Growing Level Of Activity Makes Attractive Market

The Norwegian economy weathered well the international recession that prevailed through much of 1975, according to Philip Combs of the Bureau of International Commerce. In the current year, reviving international demand for many of Norway's traditional exports foretells good performance for most sectors of industry. This strengthening in economic performance, together with high levels of activity in the offshore oil and gas industry, make Norway a most attractive marketing area for alert U.S. exporters.

Recognizing the healthy state of domestic demand and the inherent import growth occasioned by strengthening export markets, the National Economic Budget predicts an 8 percent growth in imports for the current year. Under these circumstances, U.S. exports to Norway should continue the upward trend of the early 1970s.

Although purchases from the United States flattened in 1975, the sharp drop in imports of ocean-going oil rigs masked substantial growth in other commodity areas. Imports of U.S. machinery, for example, were up about 40 percent over 1974, and imports of other metal products and iron and steel almost doubled, albeit from a smaller base.

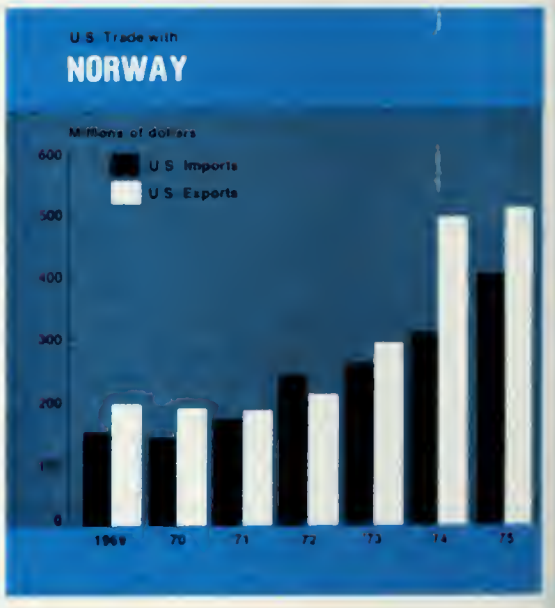
Norway's GNP, which increased 5.1 percent to $24.6 billion (in constant 1974 prices) in 1975, is forecast to grow at a 7 percent annual rate through the end of the decade. Major factors in this development include high levels of investment; relatively brisk consumer demand; expansionary monetary, credit, and fiscal policies; and government measures aimed at maintaining output and employment.

Norway's 1975 balance of payments deficit on current account was a record $2.3 billion, nearly double the 1974 deficit. To help cover the mounting payments deficit, Parliament authorized $1.5 billion of borrowing abroad. Although this borrowing will raise government foreign debt eight-fold, Norway's credit standing remains strong, due in large measure to anticipated earnings from offshore oil holdings. Oil revenues are expected to enable Norway to liquidate its foreign debt by the early 1980s and thereafter produce a substantial net cash inflow.

Norway's main economic problem is now inflation. Unit costs in Norway, according to the Norwegian Export Council, rose about 13 percent in 1974-75. The consumer price index in 1975 rose 11.7 percent (9.4 percent in 1974). The wholesale price index rose only 7 percent, reflecting relatively stable import prices.

To combat rising domestic costs, the government negotiated a comprehensive incomes and wage package with labor and industry. Basically, the settlement offers tax relief and increased government subsidies as inducements to labor to accept smaller wage increases.

U.S. sales opportunities appear strong in the following commodity areas: consumer goods, electronic components, electronic production and test equipment, machine tools, oil and gas industry equipment, pollution control equipment and process control instrumentation.



PORTUGAL

Economic Difficulties Limit Import Demand

U.S. exports to Portugal should show little, if any, growth in 1976 due to the country's continuing economic problems. U.S. exports to Portugal in the first five months of this year reached only $160 million, down sharply from the previous year, reports Ken Nichols of the Bureau of International Commerce.

Since the April 1974 revolution, substantial political and labor unrest has severely crippled the Portuguese economy. Within recent months, however, the political situation has stabilized, with the first democratic legislative and presidential elections in nearly 50 years. Under the administration of President Eanes, the new Socialist-led government is expected to develop a comprehensive economic program to deal with the serious problems of inflation, low productivity, unemployment and the crucial lack of investor confidence.

According to government figures, real GNP declined by more than 10 percent in 1975 while the consumer price index rose 17 percent and unemployment reached over 12 percent. The outlook for 1976 is for little recovery.

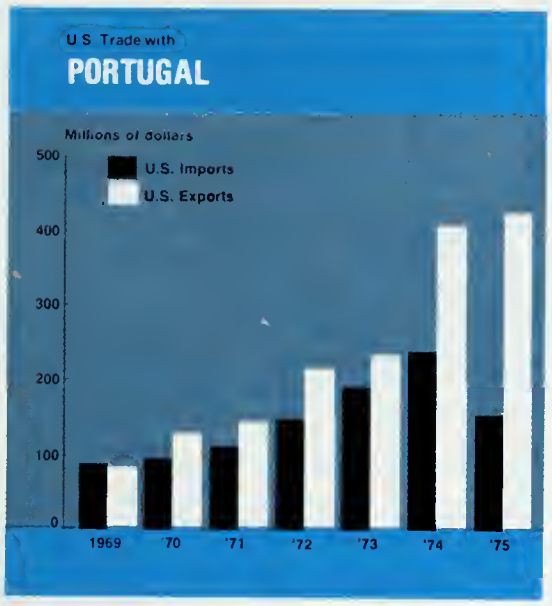
The last provisional governments implemented a number of partially successful measures including increased direct taxes, price and wage controls, indemnification for government expropriations, export incentives and a detailed foreign investment code.

Since the revolution about 70 percent of Portugal's major industries and services has been nationalized. Generally speaking, foreign investment has been exempt from any direct intervention. A number of the 100-125 U.S. firms, however, have been subject to forced labor settlements, worker takeovers and occupations. Total U.S. investment in Portugal is estimated at $200-$250 million.

Despite the current economic recovery in most of Western Europe, demand for Portuguese products remains low. Import demand, however, has remained strong, particularly for agricultural products and energy; crude oil imports are expected to total over $550 million in 1976. Due to continued high oil prices as well as the sharp rise in costs of manufactured imports, the Portuguese trade deficit is expected to reach some $1.6 billion in 1976, a slight improvement from 1975.

So far the Portuguese Government has largely resisted drawing on its estimated $1.2 billion in gold reserves. To offset severe payments deficits, Portugal has drawn down extensively on its foreign exchange holdings while also receiving substantial loans from several West European countries and European regional organizations. Offsetting overseas remittances from some 1.5 million emigrant workers and tourist revenues have fallen in the past two years.

The following product categories offer high potential for U.S. export sales: building and construction supplies and equipment; petroleum exploration and refinery, petrochemical and mining equipment; metalworking and finishing equipment; energy systems; food processing and packaging equipment; and health care industries equipment and instrumentation.



YUGOSLAVIA

High-Technology Goods, Joint Ventures Favored

Increased trade with the United States is expected in 1977, resulting from U.S. investment in Yugoslav chemical, agricultural and energy development; some relaxation of import restrictions; and Yugoslavia's beneficiary status under the Generalized Scheme of Preferences. This is the picture seen by Roger Turner of the Bureau of International Commerce.

Local business conditions still reflect a low rate of productivity, but confidence has increased in government circles resulting from success achieved with the import and related economic restraints imposed in mid-1975. Balance of payments and inflation figures have improved; reserves are approaching $2 billion, with the current account deficit revised downward (below $700 million); and Yugoslav exports have increased some 35 percent over 1975, thereby generating vital foreign currency needed for imports. Yugoslavia's social product, which excludes public and personal services, increased some 6 percent in real terms during 1975 and is expected to maintain this growth rate through 1976.

U.S. suppliers enjoy a relative advantage vis-a-vis foreign competitors, since it is precisely in areas of U.S. leadership like advanced capital equipment and high technology that Yugoslavia will continue to permit imports. The United States, which retains a 5.4 percent share of the $8 billion local import market, is Yugoslavia's fourth largest supplier after West Germany, Italy and the USSR.

By 1977, the U.S. import share (c.i.f.) may reach 6 percent, with total imports approaching $500 million; much of the increase will emanate from major U.S. investments in energy development, chemicals, and the high priority placed on development of agricultural and food processing industries.

Joint ventures continue to be favored by Yugoslav officials. To date, 17 such agreements have been consummated with U.S. firms. Recently, investment regulations were issued which require joint ventures to develop export capability sufficient to secure repatriation of invested foreign resources and profit, and which limit the foreign equipment component to one-third of total investment.

Best prospects for American suppliers involve capital equipment and high technology, especially in the sectors of power generation, agricultural equipment, food processing, extraction of raw materials and heavy engineering.

In all sectors United States suppliers should attempt to deal with end-users who have the demonstrated ability to generate exports on their own, i.e., obtain foreign currency, in order to comply with the 30 percent (export-import) coverage requirement facing most Yugoslav imports.

Upcoming promotional events include: technical sales seminars on energy development, October 1976, and avionics, February 1977, in Belgrade; an international exhibition on food processing and agricultural equipment at Novi Sad, May 1977; and a trade mission on communications, April 1978, in Belgrade.

GREECE

Industrialization Offers New Sales Opportunities

Responding to the reflationary policy of the government, the Greek economy continues to show signs of growth. The anticipated higher economic activity in 1976 offers to the U.S. good prospects for enhanced sales opportunities, according to John L. Priamou of the Bureau of International Commerce.

In 1975 GNP rose 2.8 percent; as the government continues its moderate expansionary policy, real GNP growth in 1976 is expected to reach 4 percent. Industrial production showed a relatively steady increase.

As Greece is moving forward to accession to the EEC, the need for modernizing and restructuring its industrial base has become more urgent. However, although both domestic and foreign investment is still lagging, the 1975 increase in deposits and the recent announcement of a number of major projects may indicate the beginning of revived confidence and investment interest. The government recognizes the significant role that foreign technology and investment will play in the development of the country and has repeatedly expressed its interest in attracting foreign capital and managerial know-how, especially in the mining and petrochemicals' industries.

In addition to legislated incentives, Greece offers an adequate and easily trained labor force and proximity to and good business relations with Middle Eastern, Balkan and African countries. In addition, the recent influx to Athens of a large number of regional marketing headquarters from Beirut may augur the genesis of Greece as a new regional commercial center.

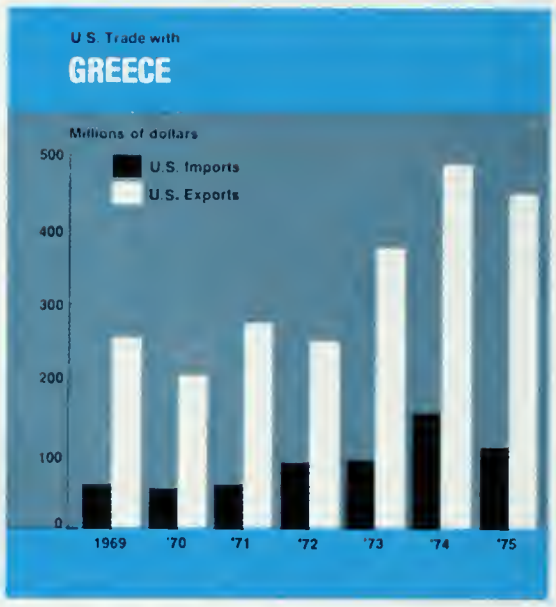
Although Greece's future prospects are positive, the country is still burdened by its chronic trade deficit. To counterbalance this the government emphasizes a policy of import substitution and export expansion.

In 1975 exports did not perform as anticipated, rising only 7 percent by volume (10 percent in value) to $2.3 billion. Imports, on the other hand, increased by 5 percent to $5.6 billion, but fell in actual volume. As in the past, invisible receipts, especially from tourism, helped to offset the current account deficit, reducing it to about $1.2 billion.

During 1975 U.S. exports to Greece represented 9 percent of the total Greek import market. As the economy improves and as the industrial modernization drive commences, the prospects for expanded sales are excellent.

American products enjoy a good reputation in the Greek market. However, the reduction in Greek tariffs on Common Market goods requires aggressive marketing efforts, competitive financing and servicing arrangements in order to maintain and increase the U.S. share of the market.

A number of growth areas, especially in transportation, environmental protection and mining, should be of special interest to U.S. suppliers. In addition, there are excellent opportunities in petrochemicals, fertilizers, food processing, tourism and ship maintenance. During 1977 the U.S. Department of Commerce has scheduled a mining equipment trade mission and a technical sales seminar on avionics and ground support equipment.



TURKEY

Economy Retains Vitality In Face Of Difficulties

Turkey has some serious recessionary problems, mainly balance of payments difficulties and high rates of inflation and unemployment, but indicative of a basic vitality in the economy are the sustained real growth rates of 6 to 7 percent over the last five years. With real GNP growth of 7.9 percent, 1975 was no exception. Another good agricultural year portends an even better growth rate of 8.1 percent for 1976, adds Ann Corro of the Bureau of International Commerce.

Machinery and transport equipment have traditionally led U.S. exports to Turkey and Turkish investment programs in both the private and public sectors insure a continuing need for such imports. U.S. exports to Turkey rose substantially over 1974, while the U.S. share of Turkey's import market remains just under 10 percent and is expected to stabilize at that level this year.

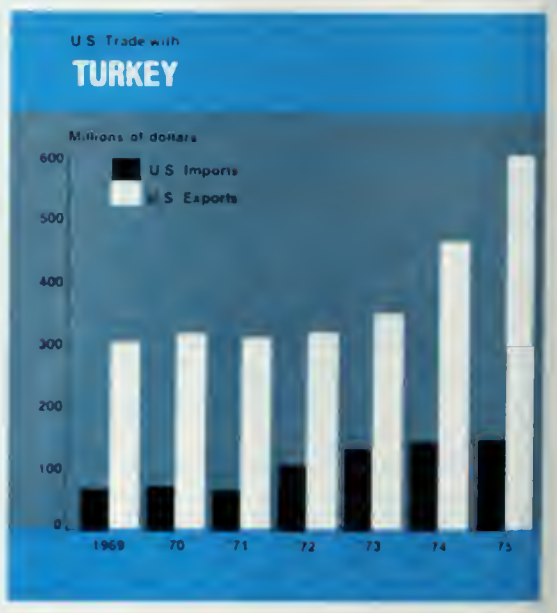
Due to Turkey's severe balance of trade deficit in 1975 of $3.3 billion (exports of $1.4 billion, imports of $4.7 billion), the government has announced a $5 billion import licensing program for 1976 and estimates that exports will rise to $2.1 billion and a trade deficit of no more than $2.9 billion will be maintained. During the first four months of 1976, overall Turkish exports increased 105 percent from $457 million to $935 million, offering encouragement for Turkey's export prospects. Imports, on the other hand, have been limited to a 6.1 percent increase over the first quarter of 1975, or $1,248 million.

While no formal program to slow import growth has been implemented, the determination of the Turkish Government to keep its trade deficit within $2.9 billion in 1976 has resulted in delays in approving transfers of foreign exchange to pay for import transactions.

Turkish critics of this restricted import policy have pointed out that more export encouragement and imaginative use of international financing opportunities should be tried first before curbing imports of capital goods and raw materials, a move which runs the risk of retarding real GNP growth as well as contributing added inflationary pressures.

U.S. prospects for immediate sales of specific machinery and equipment are especially promising in public and private investment projects for the establishment of textile and ready-to-wear clothing facilities; chemical, petrochemical, fertilizer, pulp and paper plants; petroleum and mineral exploration; ore processing plants; thermal and hydroelectric (and possibly nuclear) power plants; and modernization and expansion of port, railroad and highway transportation facilities. Of increasing importance to the successful selling of U.S. goods to Turkey is the added inducement of offering suppliers credits and attractive import financing package assistance from Eximbank or other U.S. commercial banks.

Commerce's trade promotion program for Turkey will include two trade missions during 1977 in the product areas of communications equipment (February) and mining equipment (April).



TRADE WITH SOCIALIST NATIONS: RECORD SURPLUS SEEN FOR U.S.

Large Grain Sales Swell Exports

U.S. trade with the socialist countries in 1976 is expected to net this country a new record surplus, one exceeding $2.5 billion, principally because of continued large grain sales to the USSR and Eastern Europe, reports William P. Thorn, Jr., of the Bureau of East-West Trade.

During January-May 1976, U.S. exports to the USSR and Eastern Europe, with the exception of Romania and Hungary, increased substantially over those of the same period in 1975. Exports to the Soviet Union reached $1.2 billion, almost triple the 1975 level. Exports to Czechoslovakia ($54 million), Bulgaria ($31 million), and the German Democratic Republic (GDR) ($27 million), for the first five months of 1976 surpassed the levels registered for all of 1975. U.S. imports from Bulgaria, the GDR, Poland, and Romania have grown this year, while imports from Czechoslovakia and Hungary have declined slightly. U.S. imports from the Soviet Union fell $73.2 million during this year's January-May period. In trade with the People's Republic of China, U.S. exports fell by 5 percent to $108 million but imports rose 17 percent to $76 million.

All the socialist countries unveiled 1976-80 economic development plans this spring, and these may generate trade opportunities for U.S. firms. Generally, the plans emphasize modernization and expansion of existing plants, rather than new construction, and call for priority development of the chemical, petrochemical, machine building, and energy-related industries. In an effort to combat hard currency deficits rapidly, these nations are also stressing the necessity of expanding their export potential.

Financing will continue to play a key role in U.S. trade with the socialist countries, primarily because their hard currency deficit is expected to top $9 billion this year. With the exception of Poland and Romania, these nations are still not eligible for Eximbank credits, and U.S. companies will continue to be hard pressed to compete with Western European, Japanese, and Canadian firms which can utilize government-backed credit programs.

During the spring, three of the private sector joint councils convened to discuss possibilities for expanding economic and commercial relations. The Czechoslovak-U.S. Economic Council held its first plenary session while the Romanian-U.S. Economic Council and the Polish-U.S. Economic Council met for the second and third times, respectively. And while the businessmen were thus examining trade relations, government officials in the United States, Poland, and Romania were beginning preparations for the sixth meeting of the Joint Polish-American Trade Commission, scheduled for September, and the third session of the Romanian-U.S. Economic Commission, which will take place at the end of the year.

Other commercial highlights this year included the first U.S. commercial exhibition of the GDR's Leipzig Fair in March. Hungarian Deputy Prime Minister Szeker visited the United States in May to discuss with President Ford, Congressmen and other U.S. Government officials the development of trade relations and possibilities for future economic cooperation. In June, Treasury Secretary Simon visited Poland, where he signed ratification documents for a double taxation convention. He also attended the U.S.-Romanian Economic Council meeting in Bucharest.

USSR

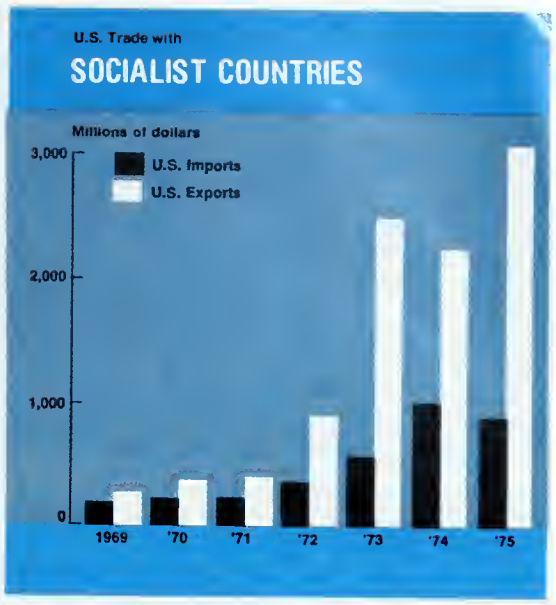
New Economic Plan Seen Spurring Purchases In West

U.S.-USSR trade turnover in 1976 should reach $2.6 billion, establishing new records for U.S. exports of both grains and manufactured goods, according to William P. Thorn, Jr., of the Bureau of East-West Trade.

U.S. exports are expected to total $2.3 billion (a $500 million increase over the 1975 level), 65 percent of which will be agricultural commodities. As the Soviet grain crop this year is expected to fall about 5 percent below planned levels, chances are good that the USSR will purchase more than the minimum 6 million tons of grain called for in the 1975 U.S.-USSR Grain Agreement, with total purchases for the year probably reaching $1.5 billion.

U.S. imports from the Soviet Union should approximate the 1975 level of about $255 million. The USSR will continue to supply the United States with platinum group metals, nickel, chrome ores, fuels, and some chemicals.

At the USSR's 25th Communist Party Congress in February, the Soviet leadership again stressed the importance of trade with the developed West and unveiled guidelines for the 1976-80 five-year

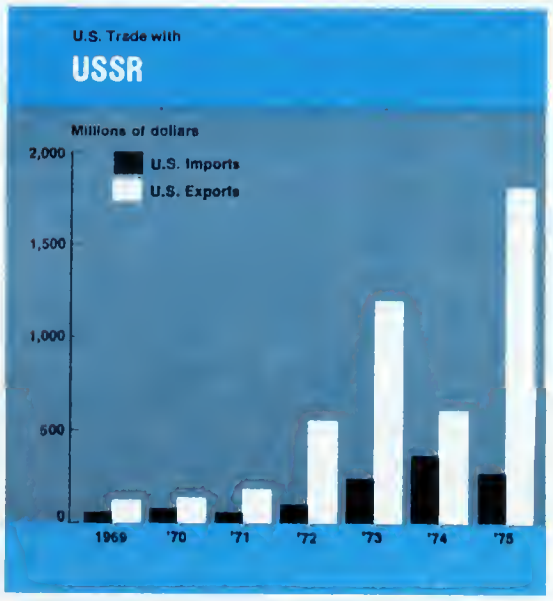


plan (available from USSR Division, BEWT, 202-377-4655). Officials emphasized the need to modernize and expand existing plants rather than to construct new facilities and called for the increased use of compensation arrangements in purchasing machinery, equipment, and technology from the West.

The planned development of certain industrial sectors may generate export opportunities for U.S. firms. In energy, Soviet plans call for rapid development of West Siberian and several offshore oil and gas deposits. Imports of pipe, compressor stations, valves, processing plants, submersible pumps, offshore rigs and other equipment will be required. In addition, the USSR is seeking equipment and/or complete plants to manufacture offshore oil rigs and other oil and gas equipment. Purchases of coal mining equipment will be made in order to expand the Ekibastuz open-pit mine and South Yakutia coking coal deposits.

The chemical industry will continue as the USSR's fastest growing industry and the Soviets will need imports from the West to meet targets for production of fertilizers, rubber, synthetic materials, and man-made fibers.

In metallurgy, the country is seeking



Western participation in constructing a pilot plant at the Udokan copper deposit, in building an aluminum smelter at Sayanogorsk and an alumina refinery at Nikolaev, and in expanding the production facilities for copper, nickel and platinum at Norilsk. In 1975, the USSR imported more steel products than it exported, and it will likely continue to import steel goods, particularly pipe, from the West.

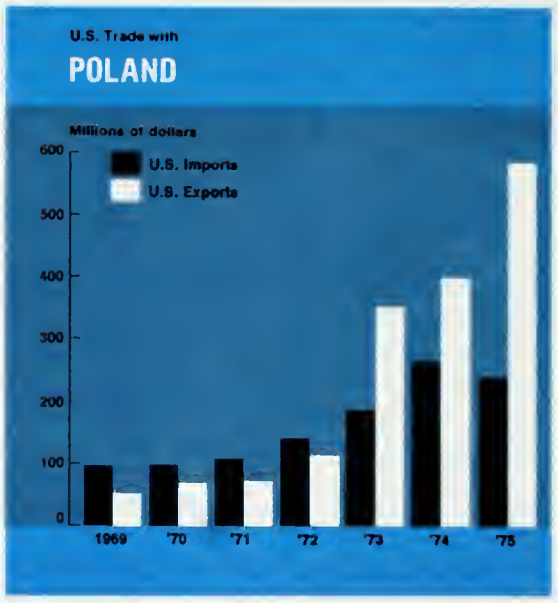
Moscow's preparations to host the 1980 Olympic games will necessitate a variety of imports. The Soviet Union's Olympic Organizing Committee has been studying what facilities must be constructed, re-equipped, or imported. Construction systems and equipment for sports facilities head the list of requirements along with various types of sporting gear, food services, and accommodations for participants and guests. In addition, the Soviets will probably import communications, data transmission, and processing systems and equipment.

The USSR is purchasing tractors, cranes, and drilling and tunnelling equipment to continue construction of the second Trans-Siberian railroad, BAM. Further opportunities will be generated by land reclamation programs and by modernization of the machine building industry, especially with respect to agricultural machinery and equipment.

At the same time, however, certain impediments will continue to hamper U.S. firms' efforts to seize these potential trade opportunities. The USSR, after registering a 1975 hard currency deficit exceeding $6 billion, is expected to incur a similarly large deficit this year, making financing of U.S.-USSR trade critically important. Since the Soviet Union is still not eligible for Eximbank credits, American firms will remain at a marked disadvantage vis-a-vis their Western European, Japanese, and Canadian competitors who are able to utilize government-supported credit programs. Also, the Soviets continue to be dissatisfied with U.S. trade legislation that attached conditions to granting MFN to the USSR.

Nevertheless, Soviet trade and industry officials continue to support trade with America: Several substantial contracts were awarded to U.S. firms in the last six months; in January, three more U.S. companies received permission to open accredited offices in Moscow; and three additional firms have signed cooperation agreements with the USSR State Committee for Science and Technology this year.

In 1977, the Commerce Department will participate in the June ELECTRO-77 exhibition of electro-technical and power transmission equipment, and in the September CHEMISTRY-77 exhibition of equipment and processes for the chemical industry. Both are to be held in Moscow.



POLAND

Trade With U.S. Expanding; Investment Law Enacted

Five-month trade figures support expectations that U.S. trade with Poland should top the billion dollar mark this year, according to Susanne Lotarski of the Bureau of East-West Trade.

U.S. exports to Poland are expected to grow to over $650 million, up from $583 million in 1975. The gains will come primarily from increased agricultural sales, principally feedgrains. The growth in machinery deliveries is expected to taper off during the second half of this year, as earlier-contracted projects near completion. Exports through the end of May totaled $255 million.

U.S. imports from Poland also are expected to show a healthy advance in 1976 to about $350 million, after a marginal contraction in 1975. The boost to U.S. imports of Polish goods, from a 1975 level of $240 million, will come from the introduction of copper and brass industrial products and increased deliveries of meat, coal, textiles, and clothing articles. Imports from Poland grew by 22 percent during the first five months of 1976, for a total of $130 million.

Despite these encouraging figures and a continuing high demand for a variety of products, American exporters are likely to encounter greater difficulty in making new sales to Poland in 1976 and more emphasis on counterpurchases. A visible trade deficit with the industrialized West of over $3 billion in 1975 has led to various measures designed to control the growth of foreign debt. Poland's exports in 1976 are slated to grow at twice the rate of imports. The ability to import, moreover, has been closely tied to exports. Individual ministries, and to some extent individual industrial associations and foreign trade enterprises, now operate under annual trade balances which require that their imports be covered by exports of equivalent value. Polish importers can thus be expected to attach increasing importance to offset purchases.

Industrial cooperation is receiving continued emphasis. For large-scale industrial cooperation projects, special importance is attached to arrangements which will develop export markets and limit or eliminate the net inflow of hard currency throughout the life of the project. Supplier credits, local-cost hard-currency credits, a buy-back commitment, and partnership in a joint marketing company outside Poland are sought as part of the cooperation package.

The enactment in May of a foreign investment law opens additional commercial possibilities in Poland. The crafts, domestic trade, gastronomic and hotel services, and other services are specified as areas open to foreign investment. Joint venture in larger projects, however, such as the development of potash, iron ore, and rare metal deposits or of aluminum smelters, may also be possible under this law. Poland is the third country in this area to permit foreign investment.

A system of tariffs on commercial imports was introduced as of the first of the year. Its impact on import decisions is as yet uncertain. It is unlikely to be a major influence in the near future or have a negative influence on U.S. exports. Since the United States grants Most-Favored-Nation treatment to Poland, U.S. goods would be subject to the lower MFN rate.

Poland's economy grew impressively over the last five years. GNP increased on the average by 10 percent annually and capital investment by 20 percent. Although the final version of the 1976-80 five-year plan has not yet been adopted, available information indicates it will attempt to ease some of the strains and disequilibria generated by this fast growth. A slightly lower growth rate is planned for both GNP and real wages. Investment priorities will concentrate on the completion of projects and the modernization of existing facilities, rather than construction of new projects. Some long-range and social infrastructure investments may be postponed temporarily.

The most difficult problems are likely to be encountered in meeting consumer demands and adjusting domestic prices. Prices of basic consumer items, primarily foodstuffs, have been frozen since 1971 and are slated to be increased this year. Efforts to balance demand and supply and to stimulate production, as well as those to link wage increases to productivity gains and to use manpower more efficiently will involve not only economic, but also sensitive political decisions.

BULGARIA

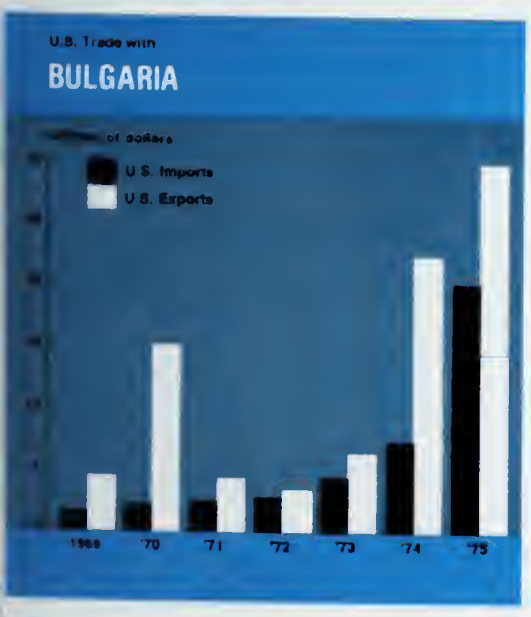
Trade Expands As Demand For U.S. Equipment Grows

U.S. trade with Bulgaria, although still modest, has continued to expand in 1976, surpassing the entire 1975 total during the first five months of the year. This expansion can be attributed to continued Bulgarian demand for U.S. feedstuffs and growing purchases of U.S. manufactured goods. Bulgaria's new five-year plan suggests that there will be increased desire for U.S. goods and technology, William T. Monroe of the Bureau of East-West Trade reports.

U.S. exports to Bulgaria totaled $31 million through May, led as usual by sizable shipments of corn. Exports of manufactured goods are increasing steadily as business contacts expand and the commercial climate improves. Still, U.S. sales fall far short of those of some Western European competitors. West German exports to Bulgaria, for example, totaled $418 million in 1975, and Italian sales reached $131 million.

Bulgaria's 1976-80 five-year plan stresses modernization and expansion of existing plant and equipment and, with emphasis on new technology, should offer major opportunities for U.S. firms. Special emphasis will be directed toward three areas: energy and raw materials, machine-building, and chemicals. Capital investment is expected to reach $30 billion and imports of plant and equipment should total $7.5 billion.

Prospects for U.S. firms appear especially promising in the chemical/petrochemical sector, which should expand output by 80 percent by 1980. Plastics, in particular, will receive special attention, with output expected to grow from 40,000 tons in 1975 to 430,000 tons in 1980. Machine building will double under the plan, with 25 percent of existing equipment to be upgraded.



Agriculture and food processing will continue to offer significant opportunities for U.S. companies. Increased mechanization and automation of the production process, modernization and expansion of irrigation facilities, special efforts to increase livestock production, and expanded use of chemicals will mark developments in this sector.

Other areas of interest include electronics, metallurgy, and construction. In the latter, Bulgaria plans an active program in the building of housing, hotels, industrial plants, and roads. In addition, Bulgaria has indicated increasing interest in Western consumer goods and has allocated $30 million this year for purchase of licenses and finished products.

The U.S. exhibition at the Plovdiv Fair in September will feature firms from the chemical and construction industries. In November, Commerce is planning to send a technical sales seminar on machine tools to Sofia.

A limiting factor in trade may be Bulgaria's ability to pay for imports from the West. Bulgaria registered a nearly $800 million deficit in trade with the industrialized West in 1975. Although this was partially offset by a surplus in trade with the developing countries, as well as by earnings from tourism and international trucking, the Bulgarians have been relying increasingly on credits and compensation arrangements to pay for imports from the West.

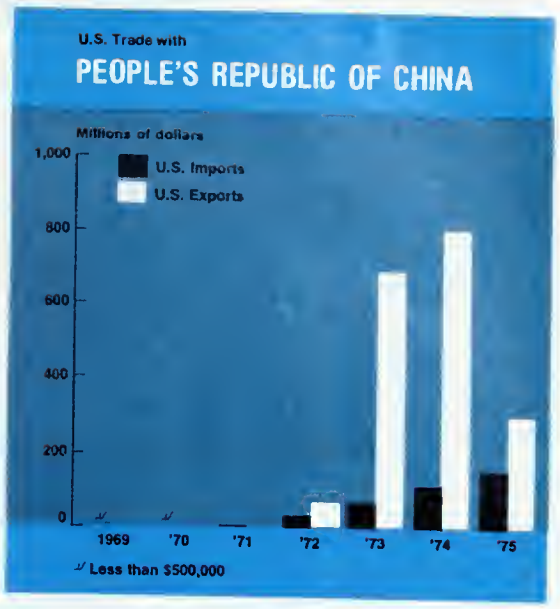
CHINA

U.S. Exports May Decline This Year, Imports Increase

U.S. exports to the People's Republic of China may decline moderately in 1976, due to the disappearance of agricultural sales. Continuing a long-term trend, nonagricultural exports should rise slightly, led by equipment and technology for petrochemical plants, oil-field equipment, mining machinery, instrumentation, aluminum, steel scrap, and pulp and paper, according to John Phipps of the Bureau of East-West Trade.

The overall level of trade will remain about the same as last year, because of an expected increase in imports from China; U.S. exports should reach $250 million and imports, $200 million. The sharp decline in the trade imbalance, which had been as high as 11 to 1, has eliminated one cause of friction.

A wider range of U.S. products should find a Chinese interest as the PRC embarks on the Fifth Five-Year Plan, and its foreign exchange earnings grow through expanding exports in a rebounding world economy. Some urgency attaches to the current plan as it coincides



with the conclusion of the first of two phases in a widely publicized, long-term plan to put China in the front ranks of the world's industrial nations by the end of this century. Requirements may lead to purchases in such product areas as oil-field, construction and mining equipment, petrochemical plant and technology, machine tools, transport and power generation equipment, steel scrap, pulp and paper, and chemicals. Major purchases of cotton and other U.S. agricultural products could occur again.

Commercial relations continued to develop in 1976 despite the existence of a number of old unresolved problems. The National Machine Tool Builders' Association hosted a visit by a delegation from the China National Technical Import Corporation which held discussions with numerous American firms and signed contracts for the purchase of $7 million of machine tools. China again invited over 400 U.S. businessmen to attend the Spring Canton Trade Fair and invited a growing number of U.S. firms to stage technical seminars in Peking. The National Council for United States-China Trade visited its counterpart Chinese organization in July to discuss a number of proposals to send American technical seminar groups to China. The third such group to be invited to the PRC is the agricultural chemicals delegation, organized by the Council and due to visit China in August. The Council continued its important role of sponsoring visits to the U.S. by Chinese trade corporations.

Normalization of commercial relations is still impeded by a number of unresolved issues. Exchange of trade exhibitions and normal banking and shipping relations await the resolution of the linked issues of PRC assets blocked in the United States and U.S. private claims against China. Most-Favored-Nation tariff status and Eximbank credits can be granted to China only if a trade agreement is reached as required by the Trade Act of 1974. Such an agreement involves a number of complex questions.

CZECHOSLOVAKIA

Five-Year Plan Boosts Trade, Licensing Prospects

Improved world economic conditions and a flurry of purchasing at the onset of the new five-year plan period, 1976-80, have given a boost to Czechoslovakia's 1976 trade with the United States. As a result, U.S. firms may find a number of important new business opportunities in Czechoslovakia, reports James L. Ellis of the Bureau of East-West Trade.

As in the past five-year plan period, current Czechoslovak priorities stress increased availability of desired consumer goods, and the development of the petrochemical and machine tool industries. Trade possibilities present themselves in these areas in particular, with such items as computer controls for machine tools, petrochemical instrumentation and control equipment, food processing and packaging machinery, and equipment for the plastics industry.

In addition, prolonged dry weather has diminished prospects for a good harvest in Czechoslovakia and so may cause an increase in purchases of animal feeds, the United States' principal export to Czechoslovakia.

In the long run, Czechoslovakia trade will probably not move far away from its two-thirds orientation with the USSR and other socialist countries, because of energy and raw materials needs which must be met from these sources, as well as because of long-term trade commitments with the area. Czechoslovakia seeks to become more competitive in Western markets, however, and so is striving to develop production of those goods which will sell there.

To promote foreign business presence and participation in current Czechoslovak projects, at the beginning of this year the Czechoslovak Government enacted a decree allowing for the first time establishment of business offices in the country. A number of applications have been submitted under the new regulation, but to date no offices have been established.

In addition, directives are about to be passed which will encourage a variety of cooperative ventures (short of joint equity) with foreign firms. These could include buy-back arrangements, joint production or marketing, or joint ventures in third countries. Czechoslovak planners reckon that, with the benefit of advanced-technology licenses, Czechoslovakia can produce modern components for foreign firms more cheaply than they could be produced elsewhere.

In the first five months of 1976, U.S. exports to Czechoslovakia exceeded the total for the whole year of 1975—over $54 million, by U.S. statistics.

The year has been marked by an exceptional number of official U.S. trade promotion events in Czechoslovakia, including technical sales seminars in food processing and plastics production, and a catalog exhibition at the INCHEBA Petrochemicals Fair. In addition, the Commerce Department will sponsor a full exhibition in computer-related materials handling equipment at the annual Brno Engineering Fair, Sept. 15-23.

GERMAN DEM. REPUBLIC

Modernization Stressed, Western Technology Sought

The German Democratic Republic's prospects for a significant trade expansion with the West appear somewhat dim—in view of the higher prices the country is now paying for raw materials from the Soviets and a growing trade deficit with the West. Those Western suppliers who are able to penetrate the GDR market, moreover, will come under increased pressure to agree to counterpurchases and to accept a larger percentage of payment in product, according to Donald Hasfurther of the Bureau of East-West Trade.

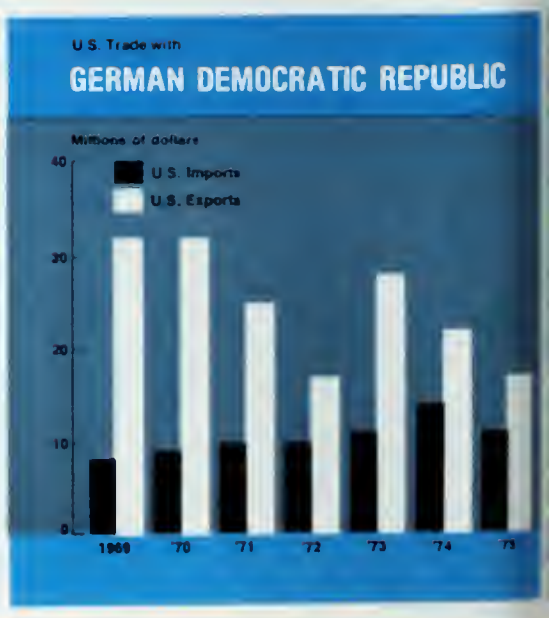
Despite this rather pessimistic picture, the GDR will be looking increasingly to the West for assistance in modernizing certain industrial sectors. Industrial plants are to be renovated and re-equipped with the most up-to-date technology in an effort to improve the quality of the manufactured product, both for domestic consumption and for export to market economies. A great deal of the modern equipment and technology for this effort will be purchased from Western sources. Outside of agricultural commodities, industrial equipment and technology offer the greatest potential for increased U.S. exports to the GDR.

The new 1976-80 five-year plan serves as an important reference for determining those priority areas in the GDR economy which could offer significant trade opportunities. According to the plan, industrial goods production is to increase by 36 to 38 percent, while industrial productivity is to increase by 30 to 32 percent during 1976-80. The plan further specifies that 60 to 70 percent of the increase in productivity will result from technological advances.

It is not surprising, therefore, that the new plan emphasizes the rapid development and installation of products embodying advanced scientific-technological parameters, such as communication equipment, automation equipment, medical and laboratory equipment, and measuring and weighing appliances. The plan also calls for introduction of the most advanced processes and methods of automation. U.S. companies, consequently, may find it to their advantage to concentrate selling efforts on new methods and machinery which can increase productivity levels.

To fulfill its ambitious economic plans, the GDR must not only increase industrial productivity, but must also strengthen its export efforts. Again the GDR will be emphasizing introduction of advanced equipment and technology in order to make the cost and quality of GDR goods competitive in the West. Those items marked for particular development to meet domestic and export demand are machine tools, strip-mining and transportation equipment, cement plants, foundry equipment, textile machines, packaging machinery, equipment for the printing industry, medical, laboratory and measuring equipment, agricultural and food processing machines, and machinery for the construction industry.

The Commerce Department will be sponsoring an industrial instrumentation exhibition at the '77 spring Leipzig Fair.



HUNGARY

Industrial Cooperation Agreements Emphasized

Publication of the Fifth Five Year Plan of the Hungarian National Economy reveals a potentially lucrative market for sales of American products, Mona F. Levine of the Bureau of East-West Trade reports. U.S. companies interested in trading with Hungary should consider industrial cooperation agreements as a way of penetrating the market. Increasingly, Hungarian authorities are looking at arrangements involving coproduction and payment in product as a way of gaining needed Western technology.

Expansion of U.S. exports of industrial goods should continue the steady growth pattern of the last three years. Total exports, however, may increase only slightly during 1976 due to the decline in U.S. soybean sales, which accounted for one half of the total exports in 1975.

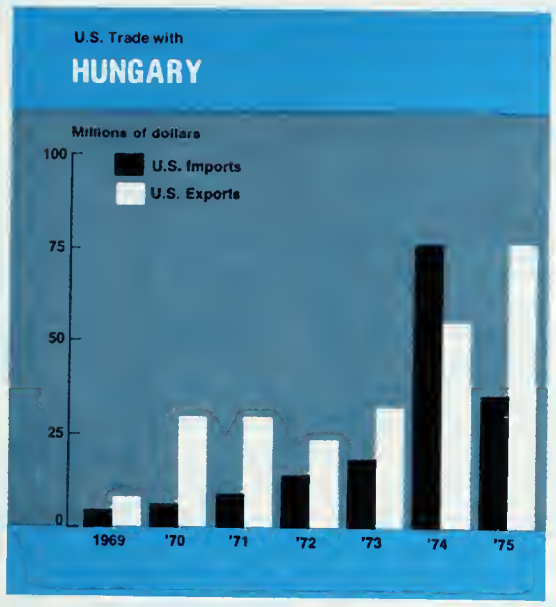
Several areas in Hungary's 1976-80 Plan offer possibilities for U.S. exporters. Hungarian officials indicate that they plan to spend $6 to $8 billion for purchases of machinery and equipment over the Plan period. Hungary will be concentrating on development of its agriculture and food processing, chemical and petrochemical, metallurgical, electronic and computer industries. Particular stress will be placed on development of export industries.

Hungarian enthusiasm for cooperation ventures stems from the country's need to further develop its industrial base at the same time that it conserves scarce hard currency to fight the trade deficits that have plagued it for the last few years. Hungary hopes to maintain the annual growth rates of 6 percent that it achieved over the period of the 1971-75 Five-Year Plan. Since zero population growth is expected, industrial development will have to be achieved through greater efficiency in production and introduction of labor-saving methods and equipment. However, with a hard currency trade deficit of $557 million in 1975, Hungary will be cautious about expenditures in the West.

U.S. firms have achieved notable success with cooperation in the field of agricultural equipment, and recently signed agreements should account for significant business growth in areas such as medical instruments and shoe machinery. During his official visit in May as the guest of Commerce Secretary Elliot L. Richardson, Deputy Prime Minister Guyla Szeker indicated that he saw possibilities for American firms in these areas, as well as in the vehicle industry, electronics, fertilizers, pesticides and herbicides, petrochemicals and pharmaceuticals.

Noting that the reciprocal extension of Most-Favored-Nation status is the most important obstacle in the way of significant trade expansion, Szeker emphasized that business opportunities exist even within the current restraints.

Commerce plans to sponsor seminars on pollution control equipment in December and medical equipment in February, and will mount an exhibition featuring agricultural and food processing equipment at AGROMASEXPO, Hungary's agricultural fair, in April.



ROMANIA

Trade Growth Expanding U.S. Firms' Opportunities

U.S. trade with Romania in the last 18 months has leveled off—at least temporarily—after a sustained rise of about 510 percent during the preceding five years, from $79.8 million in 1970 to $408.3 million in 1974, Suzanne F. Porter of the Bureau of East-West Trade reports.

The trade level for the first five months of 1976 is about 6.3 percent above that of the same period in 1975 ($136.5 million in 1975, compared with $145.1 million in 1976). The Romanian Government anticipates that U.S.-Romanian trade will pick up during the last half of this year and raise the total to about $400 million or more for the year, an increase of at least 16 percent over the 1975 total.

Romania plans to allocate between 33 and 34 percent of its national income to development of its economy during the current Five-Year Plan period, with about 60 percent of this amount being invested in the expansion and modernization of Romanian industry. Romania also plans substantial growth in the volume of its foreign trade and expects in particular to import plants, machinery and equipment. U.S. exporters can therefore anticipate trade opportunities in selected areas which the Romanians have designated for growth and investment.

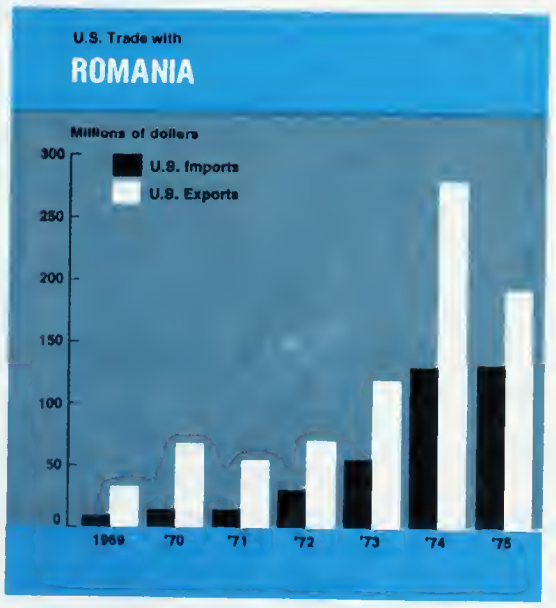
The industrial sectors most heavily targeted for growth are machine building, chemicals and petrochemicals. Specific areas of expansion include electronics and electrical engineering, fine mechanics and optics, and metal cutting machine tools. In the chemical industry the Romanians expect to use domestic raw material resources whenever possible to meet planned targets. In petrochemicals, priority is being given to the output of synthetic yarns and fibers, plastics, synthetic rubber, and fertilizers.

As a part of its continuing economic development program, Romania is emphasizing cooperation activities with other countries, especially in manufacturing and in technological and scientific sectors. Trade opportunities are expected in such priority areas as plant and equipment for steel mills, oil drilling rigs and equipment for light and food industries. Cooperation activities may be located in the territory of either partner or in third countries, the latter of which the Romanians continue to emphasize to prospective Western partners.

The World Bank has recently provided financing for two major projects, the Rasova-Vederoasa irrigation and agricultural development project, and the Riul Mare-Retezat hydropower project. Both offer various areas of cooperation between U.S. firms and Romanian enterprises.

A renewable three-year Maritime Agreement between the United States and Romania was signed and entered into force on June 4. Among other provisions, the agreement encourages development of container transport in shipping between the two countries. The agreement does not cover fishing vessels.

The Commerce Department is sponsoring a number of trade promotion events in Romania in the last half of 1976.



NEAR EAST, NORTH AFRICA: DEVELOPMENT MOVING AHEAD

Business Prospects Remain Strong

Economic activity in the Near East and North Africa continues to flourish, although in several countries the spectacular increases in imports recorded over the past two years have slackened. Despite some slowdowns, the countries remain some of the fastest growing markets for a wide variety of U.S. goods and services, reports Kathleen Keim of the Bureau of International Commerce. Current projections estimate U.S. exports to the area will exceed $12 billion this year, 20 percent over 1975. In addition, U.S. architects, engineers, construction companies, and consultants could gain service contracts worth billions of dollars.

The growing impact of the Near East/North African market on the U.S. balance of trade is exemplified by the fact that in 1975 U.S. exports to the region were 9.4 percent of total U.S. exports as opposed to only 6.4 percent in 1974. U.S. imports (primarily petroleum) from the area in January-May of this year totaled $5.3 billion, an increase of 56 percent over the same period in 1975. With U.S. imports from the Near East and North Africa rising at a faster rate than exports, a deficit in the U.S. balance of trade with the area is expected in 1976. This is in contrast to the substantial surplus recorded last year.

The largest markets for U.S. products in the Near East and North Africa are Iran, Saudi Arabia, and Israel. In all three countries, the United States is the leading supplier with 20, 31, and 22 percent of the market, respectively.

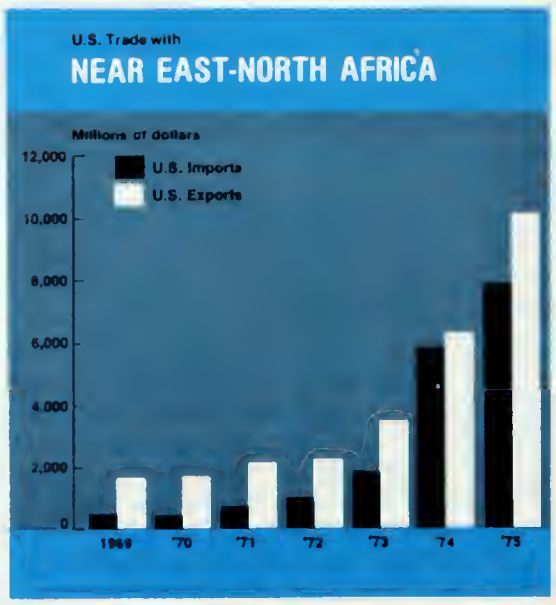
Iran's rapid pace of development is by no means a recent phenomenon, although the oil price increases of 1973-74 moved Iran from a capital deficit to a capital surplus position almost overnight. Some of the euphoria of those years has given way to a more pragmatic approach to development, but Iran continues to advance toward its goal of becoming a modern industrial power.

Saudi Arabia, which is in the early stages of development, is accruing oil revenues in staggering amounts. Furthermore, the country will continue to be the world's leading oil exporter for a number of years, earning large amounts of money to carry out its ambitious development plans, invest abroad and assist less wealthy developing countries.

Israel has a well developed infrastructure and industrial sector in comparison with neighboring countries. It is a sophisticated technology-oriented country which has experienced steady economic development throughout its 25-year history. Further growth will be centered on science-based, export-oriented industries. Historically close relations between the United States and Israel plus U.S. superiority in high technology products make Israel a natural customer for U.S. products and services.

Oil dominates any economic discussion of the Near East and North Africa, where large oil exporters—Algeria, Iran, Iraq, Kuwait, Libya, Qatar, Saudi Arabia and the United Arab Emirates—are members of OPEC (Organization of Petroleum Exporting Countries). A recent study estimates Near East/North African OPEC oil revenues will top $90 billion this year and should exceed $110 billion by 1980. Translated into opportunities for U.S. business, it is estimated that the countries will import annually about $75 billion worth of goods by 1980 and almost $90 billion by 1985. With the exception of the United Arab Emirates and Qatar, the countries now have, or are completing work on, development plans which give an indication of spending priorities over the next several years.

Most of the oil-exporting countries are undergoing accelerated rates of development, and massive capital inputs are straining existing infrastructure and human resources. Port congestion is probably the most serious constraint to economic development; ships are experiencing delays of up to 100 days in some ports. A shortage of managers and skilled and unskilled labor also is a critical factor, necessitating an influx of foreign workers who are overtaxing available housing. These problems, plus others in transportation, communications and power, have created serious inflationary pressures.



The governments are aware of these obstacles to economic development and are seeking to overcome them as rapidly as possible. In almost every country massive housing projects—whole new towns—are under way or being planned. Billions of dollars have been allocated for modernization, expansion and construction of additional port facilities, together with streamlining of cargo handling methods and customs procedures. Additional billions will be spent on large scale water desalination/power complexes, roads, airports, sewage facilities, schools, hotels, hospitals and recreational facilities.

The resulting improvement in facilities and services will sustain industrial growth devoted primarily to expansion of the petroleum industry. Among the planned projects are refineries, LNG, LPG, petrochemical, and fertilizer plants and gas and oil pipelines. Other smaller industrial projects to be undertaken range from aluminum plants and construction-related industries to paper bag factories.

Qatar is expected to earn $2 billion in oil revenues in 1976. However, the future of the country will be based on recently discovered non-associated natural gas which should last hundreds of years after the oil runs out. Like other oil-exporting countries, Qatar is industrializing using petroleum and natural gas as fuel or feedstock.

In the past year an increasing number of U.S. architects, engineers and contractors have shown interest in Qatar's major projects. U.S. manufacturers, especially in construction equipment, building materials, housewares and household furnishings and materials handling equipment, are also discovering an attractive market for their products.

Oman's 1976-80 development plan, currently under discussion, attempts to move away from dependence on oil by developing mineral resources and light industries. Agriculture is also a priority area to decrease dependence on imported foodstuffs. A small country faced with a shortage of technically trained personnel, Oman has turned to foreign advisors and technical assistance. The United Nations and World Bank are providing assistance to the Omani Government in areas of finance, education and agriculture. U.S. companies have been engaged to advise on uses for the country's hydrocarbon resources, to manage the airport and to provide consulting services for road construction.

Several of the oil-exporting countries have allocated substantial funds for loans and grants to Egypt, Syria, Jordan, Tunisia and other developing countries. Additional funds are being provided by "triangular" investment in which capital from richer countries is linked with foreign technology, hopefully American, to

develop projects in third and poorer countries. Based on these financial resources plus aid from other sources, including the United States, the non-oil exporting countries should not be ignored by U.S. business.

Syria's planners are currently preparing to issue the Fourth Development Plan (1976-80). Expenditures over the five years are expected to reach $16 billion, concentrating on development of petroleum resources, agriculture and supporting infrastructure. The outlook for U.S. exports to Syria appears bright as, contrary to previous policy, Syria now welcomes U.S. and other Western participation in the economy. A U.S. consortium, for example, recently signed a 26-year offshore oil prospecting contract.

In 1976, U.S. exports to Syria should more than double, based in part on sales of aircraft and locomotives totaling $121 million. In addition the U.S. Congress recently passed the FY 1976 aid package for Syria totaling $80 million. In contrast to the activity of U.S. suppliers in Syria, U.S. companies have not been able to gain large turnkey contracts during the past two and one-half years. The reluctance of U.S. companies to bid on projects is due primarily to political tensions in the area, inflation, bid and performance bond requirements, and stiff competition offering attractive financing.

Jordan's budget is heavily dependent on foreign aid ($122 million in 1975) and remittances from Jordanians living abroad ($166 million in 1975). Development programs are financed by long-term, low-interest loans from Arab countries, the United States and other Western nations and international financial institutions. Jordan's Five-Year Development Plan (1976-80) provides for expenditures of $2.3 billion concentrated in agriculture, mining, manufacturing, tourism, and transportation. Jordan, over the past year, has also passed legislation to encourage establishment of regional offices in Amman, the capital. To date, some 70 companies, 24 of which are American, have taken advantage of the incentives and have located their regional offices in Jordan.

North American countries (Libya plus the Maghreb countries of Morocco, Algeria and Tunisia) are sometimes overlooked by American business in the face of the glittering Saudi Arabian, Iranian and Kuwaiti markets. But these countries continue to develop their economies, providing business opportunities for those with the initiative, patience and the right products or services. The Commerce Action Group for the Near East (CAGNE), U.S. Department of Commerce, Washington, D.C. 20230 (phone 202-377-5341), can assist U.S. company officials interested in doing business in the Near East and North Africa.

ISRAEL

Foreign Investment, Capital Goods Sought

U.S. exports to Israel in 1975 rose 28 percent over the year before to a level of nearly $1.6 billion, reports G. Gayle Reichhardt of the Bureau of International Commerce. This made Israel America's second largest trading partner in the Middle East during 1975, exceeded only by Iran.

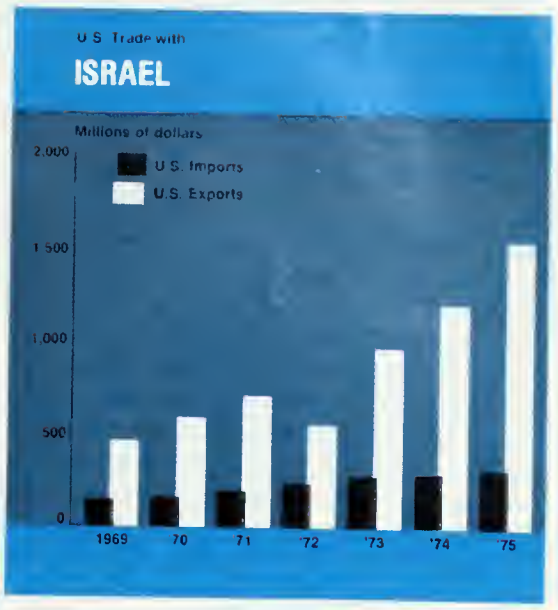
During last year, the United States also improved its position as Israel's leading foreign supplier, increasing its share of Israel's import market to 22 percent, a 4 percent greater share than in the previous year.

This trend of increasing U.S. exports to Israel is due principally to large Israeli purchases of American-made capital equipment and augmented by increased U.S. economic aid. As these trends continue, the level of U.S. sales to Israel may reach approximately $1.9 billion in 1976.

There are several reasons why U.S. exports to Israel are expected to increase this year. Although the slowdown in Israel's economic activity which began in 1974 continued during 1975, Israeli Government statistics indicate the GNP did increase in real terms by 1 percent during the year. Despite the government's continuing policy of economic restraint, higher economic growth is expected in 1976. This will present opportunities for expanded U.S. sales of capital goods, particularly in the high priority export industry and defense sectors. U.S. sales should be enhanced by assistance from the United States in the form of commodity import assistance.

Although interest in high-quality, high-technology American products is as strong as ever in Israel, U.S. suppliers will have to participate in an increasingly competitive market during the months ahead. Israel signed a comprehensive trade agreement with the European Community in May 1975 to reduce their mutual tariffs to zero by stages over the next several years. However, the Government of Israel has also agreed to reduce tariffs on about 130 U.S. exports to Israel which could be adversely affected by the Israel-EEC agreement.

Israel is actively seeking foreign investors to participate in its economic development, particularly in expansion of its science-based industries. Several factors may encourage American investors to explore opportunities in Israel. On January 1, 1976, Israel became eligible for the generalized system of preferences (GSP). Countries qualifying for GSP may export some 2,700 products to the U.S. duty-free.



This development, combined with Israel's duty-free arrangement with the EEC, would enable a U.S. investor engaging in a joint venture in Israel to export a number of products duty-free to both the U.S. and EEC markets. In addition, if ratified by the U.S. Senate, a treaty for the avoidance of double taxation on U.S. investments with Israel will take effect later this year.

Increased U.S.-Israel trade can economically benefit both countries. The governments of the two countries have been working together through a U.S.-Israel Joint Committee for Investment and Trade.

In addition, a joint Israel-U.S. Business Council has been formed to provide a valuable private sector complement to official government-to-government deliberations. The Council held its first plenary session in Jerusalem in June.

Throughout 1976, areas of greatest opportunity in Israel for U.S. exporters will be in the areas of chemical processing equipment, electronics, process control instrumentation, avionics and aviation support equipment, pollution control equipment, health care systems, power generating equipment, metal working and finishing equipment, and business equipment and systems. The Commerce Department will sponsor specialized trade promotion events in Israel for several of these product areas.

The Commerce Department will support U.S. participation in Israel's international trade fair, Technology '77, to be held in Tel Aviv June 1-8, 1977. The U.S. pavilion will feature U.S. machine tools, metalworking and metal finishing.

Commerce will also sponsor a building and construction trade mission to Israel during January 1977. A show-and-sell business opportunity on business equipment and systems is being planned to visit Israel in October 1976. Additionally, Commerce has been working with Shalom Stores Ltd. in Israel to arrange an in-store promotion on a U.S. Bicentennial theme Oct. 10-31.

ALGERIA

Major Opportunities Exist Despite Development Pause

Algeria continues to offer significant opportunities for U.S. exporting, contracting and consulting firms, though financial constraints have slowed the pace of development spending in recent months. U.S. exports to Algeria this year are expected to reach $512 million, down 19 percent from 1975, according to Claude Clement of the Bureau of International Commerce.

This projection is based on several factors. Following liberal import spending during 1974 and the early months of 1975, Algeria is now short of cash. Imports from all suppliers were temporarily reduced earlier this spring, as government officials set new spending priorities. At the moment, only those countries which supply large amounts of export credits, such as West Germany, are expanding their exports to Algeria. In addition, external financing has become an essential element in successful contract negotiations with Algerian state companies.

Realizing that financial constraints would necessarily slow down the planned rate of development, Algerian officials are reassessing development priorities and imposing stricter budget discipline on all contracting agencies. As a result, several major projects of the current $26.5 billion Development Plan have been shelved or cut in scope. Emphasis in the remaining two years of the Plan will be on improved management and satisfactory completion of those projects already started. While Algeria will remain a major market for U.S. suppliers, there will be a temporary lull in demand for capital equipment as the country reaches a plateau in its quest for industrial self-sufficiency.

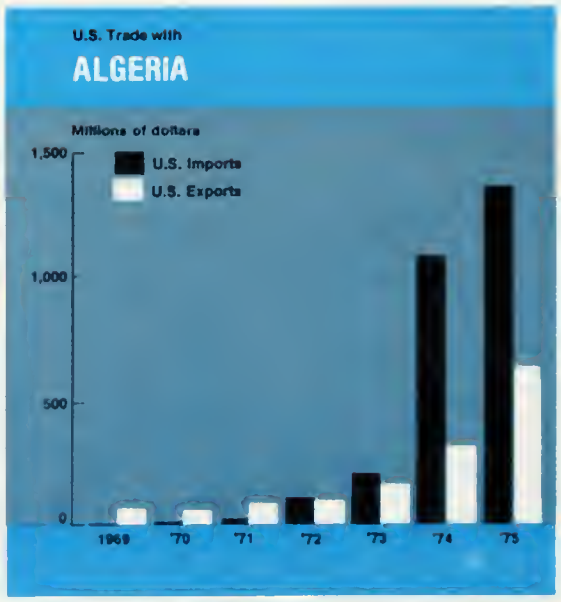
Another factor in the decline in U.S. exports this year is the recently signed wheat agreement with Canada calling for delivery of one million tons over a three-year period. Depending on world wheat conditions, this agreement and others which may follow with the European Economic Community and Sweden is likely to dampen U.S. wheat exports, which in recent years have accounted for about 30 percent of total U.S. exports to Algeria.

Algeria's financial problems are, however, short term. Revenue potential is strong—oil earnings will reach $5 billion this year and sales of condensate and liquefied natural gas are expanding. Algeria's current credit ratio of 15 percent is considered manageable by international financing sources—as evidenced by the award last May to SONATRACH, Algeria's hydrocarbon monopoly, of a $430 million Eurodollar loan in which several prominent U.S. banks participated. Japan's export finance facility also provided credits for SONATRACH's 1976 capital expenditure program in the form of a $350 million loan to cover imports of equipment for construction of two natural gas treatment plants at Hassi R'Mel. In June, Belgium provided credits of $128 million for work on the planned liquefaction plant LNG II at Arzew.

According to projections by Algeria's Ministry of Planning, development spending in 1976 will exceed $6 billion. The oil and gas sector, backbone of the economy, will absorb more than half of total industrial investment as top priority is placed on construction of production facilities for liquefied natural gas. Algeria's long-term goal is to have its natural gas exporting industry in place as its oil revenues decline in the 1980s.

Algerian needs are expressed through international calls for bids, hundreds of which are issued annually. Successful marketing involves matching one's products to a particular tender or sector targeted for expansion; corresponding and supplying literature in French (English is rarely understood); and long, hard bargaining with skillful negotiators who know well how to pit one firm against another and who stick tenaciously to contract terms once negotiated. The ground work must be done without agents or middlemen, who are officially discouraged by the Algerian Government.

Two events in recent months have highlighted the growing commercial ties between Algeria and the United States. A delegation from Algeria's Computer Agency joined U.S. Government officials and representatives from 14 firms at the Commerce Department to discuss Algerian plans in the data processing field; and a U.S. technical sales seminar on agricultural land development was held in Algeria in May.



EGYPT

Need For U.S. Goods In Development Programs

The Arab Republic of Egypt, with a 38 million population expected to increase to 70 million in the year 2000, is potentially by far the largest market in the Near East, points out John T. Haldane of the Bureau of International Commerce. As such, U.S. exporters have increasingly directed their attention there since 1973.

Total Egyptian imports from the United States have grown rapidly in each of the past two years, and should reach almost $1 billion in 1976. This trend should continue as the government pushes development programs in both the industrial and agricultural sectors and continues its efforts to rebuild the private sector.

Food grains and edible oils continue to be the most important component of exports to Egypt, but construction and road-building machinery is becoming a particularly significant product category, along with a growing range of manufactured items. As development efforts progress, imports of U.S. capital goods should by far outvalue agricultural commodity totals.

A continuing area of interest to U.S. firms is the development program of the U.S. Agency for International Development (AID). If current plans materialize, U.S. assistance will total more than $900 million for commodity import and project activities during the 15-month fiscal year ending Sept. 30, not including food grain sales under PL-480.

Investment prospects for U.S. business in Egypt have been dampened by the government's requirement that private sector-initiated projects must generate sufficient foreign exchange to preclude the necessity for virtually any access to Egypt's limited convertible holdings.

However, the potential for useful and profitable investment remains, both in domestic production facilities geared partially to develop local markets, and in off-shore free zone operations designed to take advantage of Egypt's ideal location for export to the Arab market.

One attraction in both kinds of projects is the possibility of linking U.S. technology and management skills with Arab oil funds seeking investment outlets.

A new Five-Year Plan, for the years 1976-80, has been drawn up and should be released in a few months. The Egyptian Government plans to invest about $20 billion, mostly in the industrial sector, but with significant inputs in agriculture, transportation and telecommunications.

Beyond the planned investments in spe-

cific industries and major projects, the government plans to make an intensified effort over the next five years to promote regional development in several target areas of the country with potential, but which have been neglected because of lack of funds.

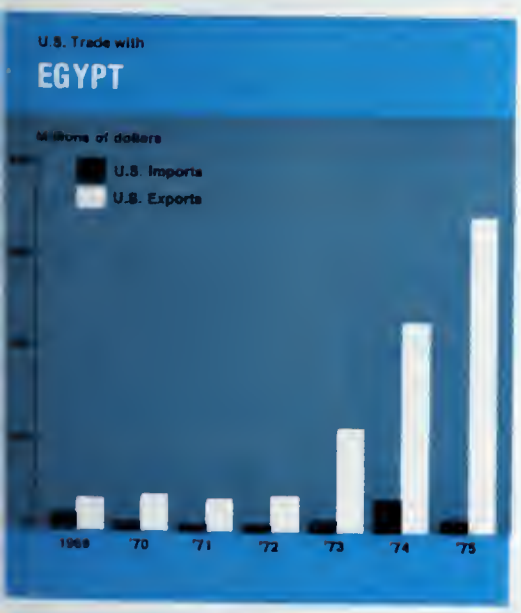
In addition to Egypt's traditional income from cotton, cotton textiles and tourism, two other sources of hard currency are becoming increasingly important. The Suez Canal Authority has announced that $215 million in fees were earned in the first 12 months of renewed operations, which was good news after eight years of no Canal income.

Oil exploration concessions now have been granted to a total of 29 foreign oil companies. Current projections, based on recent new discoveries and additional promising indications from ongoing exploration, indicate that Egypt may become a significant oil exporter by 1980.

Upcoming trade promotion events include a port development technical seminar in October and a food processing and packaging trade mission in March.

A recent meeting of the Egypt-U.S. Business Council's executive committee focused on the efforts by a number of leaders of the U.S. business community to help Egypt attract U.S. investments. The participants agreed that the most significant development to emerge from the session was the presentation of 35 abstracts of Egyptian projects viewed as the most suitable for joint ventures. The initial list of projects reviewed numbered over 250 individual proposals. The studies are available from the Egypt-U.S. Business Council, Chamber of Commerce of the United States, 1615 H St. NW., Washington, D.C. 20062.

The U.S. pavilion at the Ninth Annual Cairo International Fair, held in March, was a success, with 20 American firms reporting $4.5 million in immediate sales and $9.5 million in 12-month projected sales. Most of the sales were in construction and heavy machinery.



IRAN

Economic Indicators Seen Resuming Upward Trend

The economic slowdown in Iran which began almost a year ago has continued through the first months of 1976, with U.S. exports to that market slightly below the dollar figures recorded a year ago. There are clear signs, however, that before the end of this year most economic indicators will have resumed their strong upward trend, although not at the dizzy rates of the past two years. Without question, Iran is still the most attractive market in the Middle East for American goods and services, Michel F. Smith of the Bureau of International Commerce reports.

The gross national product of Iran is dominated by the performance of the petroleum sector. In constant dollar terms, the GNP grew by 34 and 42 percent during the 12-month periods which ended in March 1974 and March 1975, respectively. The comparable growth rate in the 1975-76 period was a mere 6.5 percent, due primarily to a 5 percent drop in oil production in terms of value (11 percent in terms of quantity). Oil revenue, which grew by only 2.2 percent in 1975-76, is expected to increase by 8 percent during the current Iranian calendar year ending in March 1977.

While petroleum continues to determine the magnitude of Iran's economic performance, the country's development is more fairly measured in the non-oil sectors, which experienced an estimated real growth of 16 to 18 percent during 1975-76 and is expected to do at least as well during the current year. Both consumer and investment expenditures held up well last year and should support a good overall level of economic activity this year. Thus, despite continued modest performance by the oil sector, the U.S. Embassy estimates that real growth will reach 11.5 percent in 1976-77. This estimate assumes 5 percent growth for the oil and agricultural sectors and 18 percent each for the industrial and service sectors.

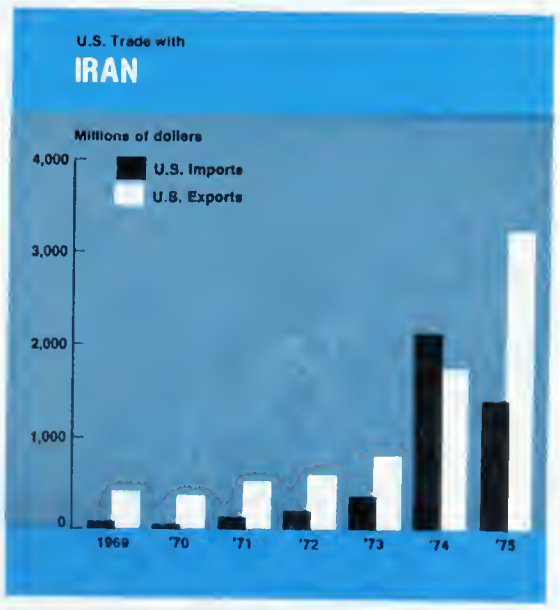
The United States, which became Iran's No. 1 supplier of goods in 1974, retained that position last year. The U.S. share of the civilian market is currently about 20 percent, with West Germany and Japan close behind. U.S. exports to Iran during 1975 totaled more than $3.2 billion, a phenomenal 87 percent larger than the figure for 1974. Signs of the current slowdown, however, became evident in the trade figures for the first 5 months of this year, which showed an actual drop of 6.3 percent compared with the figures of a year ago. Nevertheless, U.S. sales to Iran are expected to top $3 billion again in 1976, despite a massive pileup of goods at Iran's seaports and other border points.

The total size of the market, now about $12 billion a year, will very likely grow to $40 billion by 1980, as the government has every intention of maintaining a rapid pace of development, financed to the extent necessary by deficit budgets and external financing. The current budget, for example, in the face of a sluggish petroleum sector, calls for a 34 percent increase in capital expenditures and official external borrowings of some $2 billion this year alone.

Iran's economic boom, beginning in 1966, has led to a number of problems, such as double-digit inflation, crippling shortages of trained manpower, and an infrastructure inadequate in many key areas. There have been acute shortages of hotel rooms, housing, power and telephone service. The most critical bottlenecks are in transportation. At one time ships were subject to delays of up to 140 days, but that situation has since improved thanks to a reduced level of imports and round-the-clock efforts to clear goods through customs. Rail and highway rolling stock is in extremely short supply, and Iran, with U.S. help, has embarked upon a road program which enjoys the very top priority.

The share participation program, whereby industrial firms of defined size and age must divest themselves of 49 percent of share capital to workers and the public, is operating better than expected. Some investment plans were postponed, but the negative business effect of the program is less than many anticipated.

As a result of Iran's swing back to offshore credits, U.S. firms that can offer some kind of financing will find Iranians more receptive to their proposals. Successful sales will require careful attention to after-sales servicing and close supervision of distributors.



KUWAIT

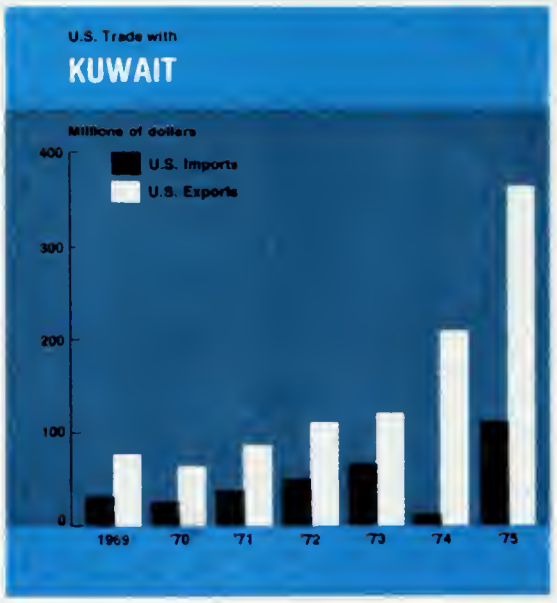
Unabated Economic Growth Enhances U.S. Opportunities

Growth in Kuwait's economy continues unabated, furnishing an excellent opportunity to U.S. firms interested in selling their products and services in an intensely competitive market. According to S. Dickson Tenney of the Bureau of International Commerce, 1976 U.S. exports to Kuwait should exceed $490 million, compared to $208 million in 1974.

Although oil production continues to be below the record levels reached in 1973, Kuwait's projected income from its oil exports and extensive overseas investments is well over $8 billion for 1976. Kuwait has invested a large part of its balance of payments surplus in short term holdings in various London and New York banks. Other funds have been placed in profitable venture projects in Western Europe and the United States and even, when feasible, in underdeveloped countries. A significant amount of the surplus is also committed bilaterally as economic assistance to multilateral agencies, or granted (or loaned at generous terms) to less affluent Arab states and to selected other nations.

Kuwaiti firms have established some small import-substitute, non-petroleum related companies, but Kuwait remains largely dependent on imports for almost all its goods and services. U.S. products are favorably regarded by the Kuwaitis and increased U.S. exports will be needed to meet both the continued strong demand for products in the large development projects and the increased demand by a number of very rich consumers. Demand remains especially strong for building and construction materials, electric and nonelectric machinery, road motor vehicles, chemicals, iron and steel, tobacco, and consumer goods such as clothing, travel goods, and photographic equipment.

Kuwait officials and businessmen have often expressed their interest in working with Americans, at least in part because of their acknowledged management, marketing, and technological expertise. However, as is true in most Arab nations, much business is done on a personal basis; U.S. businessmen interested in developing significant sales or winning a bid on a major project must be prepared to devote a considerable amount of time to meeting officials and developing good contacts in the area. It is essential that a good working relationship be developed with a Kuwaiti agent—an estimated 1,500 U.S. firms are already represented there—because he is often aware of major projects, and prospective tenders for products long before the official an-



nouncement. Once the announcement is made, the tender deadline is often short and uninformed U.S. firms are unable to work up a bid before the tender closing date.

The Government of Kuwait plans to significantly expand its petroleum related facilities. Work has begun on the $1 billion Kuwait Gas Utilization project (KGUP) which will include an LPG plant capable of producing 5.5 million tons annually of propane, butane, and natural gas. Other plans include a new export refinery, capacity expansion of working refineries and fertilizer plants, and construction of additional petrochemicals plants for the manufacture of aromatics, ethylene, and polyethylene.

Kuwait continues to express interest in using its petroleum to make products, rather than just as a source of energy, with plastics, fibers, synthetic rubber, detergent, and fiber glass presently under consideration. One possible stumbling block for these projects is that any new plants, as well as the present major power plants, will require large amounts of cheap gas to operate efficiently. There is some concern whether sufficient amounts of gas can be separated from the reduced amount of oil now being pumped since the recently discovered non-associated gas will not be available for some time.

The major port facilities at Shuwaikh and Shuaibi and the Kuwait International airport are to be expanded to overcome congestion. Major highway projects are under study, including a 30-mile rapid transit line between Kuwait and the major industrial area of the country. Most of these projects will be tendered to Kuwait firms which sometimes subcontract out part of the construction work to foreign firms and put out private tenders for products. The Kuwait Government will also spend $4 billion to build new public housing for low- and medium-income Kuwaitis, and must expand power and water desalting facilities.

SAUDI ARABIA

New Ventures Invite U.S. Trade

Saudi Arabia's $142 billion economic development plan is creating tremendous opportunities for American business, says Jack Orlando of the Bureau of International Commerce. The prospects for U.S. consultants, architects and construction management firms gaining a larger share of multi-million dollar turnkey contracts have been improved by the Saudi Government decision to reduce performance bond requirements from 10 to 5 percent and bid bond requirements from 2 to 1 percent. A major avenue of product sales derives from the booming market for consumer goods resulting from the growth of personal income levels in Saudi Arabia. (See "Saudi Rush to Develop Points Up Needs in Other Areas," *Commerce America*, June 21, 1976.)

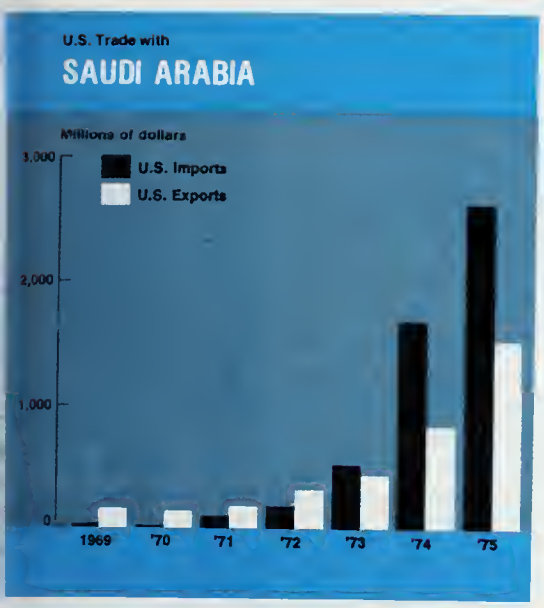
Although world competition for the Saudi market is now intense, U.S. exports are expected to leap from $1.5 billion in 1975 to $2.8 billion this year, constituting some 20-25 percent of the country's total imports.

The Saudi Five-Year Development Plan (1975-80), available in English for $16.25, is a guideline to many large and varied business opportunities. Full implementation of the Plan is being hampered by several critical constraints: port and airport congestion, skilled and unskilled labor shortages, and the lack of adequate housing for the thousands of expatriate management personnel and tens of thousands of imported laborers necessary to execute contracts.

Fortunately, the recent establishment of U.S.-Saudi roll-on, roll-off services should enable U.S. cargoes to move more quickly into the Saudi market, thereby improving the U.S. competitive status.

Two key areas for business leads are the planned multi-billion dollar projects at Jubail and Yenbo. These sites are to be developed into comprehensive industrial zones including new cities, ports, petrochemical plants and other manufacturing installations. The South Korean firm Hyundai Construction was recently awarded a $955.7 million contract to build the second stage of Jubail Port. Foreign procurement will include explosives, steel structures, paint, oil, dredging pipe, generators and cranes. Another massive multi-billion dollar project is the gas gathering complex entrusted to the Fluor Corporation.

There are more than 140 other identifiable major projects under way in Saudi Arabia, involving total expenditures of about $14 billion, which have been awarded to foreign firms. As these proj-



ects are dispersed throughout the econ-omy, U.S. exporters can find large sales opportunities by contacting prime con-ractors or subcontractors.

The U.S. Army Corps of Engineers s extensively involved in Saudi Arabia is a consultant and supervisor on more han 20 large Saudi military projects stimated to cost a total of $16.9 billion. J.S. firms wishing to obtain information nd advice on how to compete for this usiness will have easier access to the Corps, which has now moved its head-uarters from Livorno, Italy, to Berry-ille, Virginia.

Commercial opportunities are not mited to government programs. Long stablished Saudi industrialists and new-emerging entrepreneurs are purchas-ng machinery and equipment for the stablishment or expansion of local in-ustries.

The Saudi housing and road construc-on industry is growing rapidly as is the rivate road transport industry. This is ading to expanded requirements for all pes of building materials and equip-ent, excavation machinery, road con-ruction and maintenance machinery, utomobiles, buses and heavy duty trucks. audi business expansion is creating more mand for office machinery and equip-ent and for data retrieval systems.

There is growing interest among Saudi ntrepreneurs in obtaining U.S. industry now-how, management participation nd product manufacturing rights for w industrial, agricultural and service ntures. They will consider equity, censing or franchising arrangements.

Some of the most active current fields interest are: hotels, food canning or eezing, trucking and heavy equipment asing, water-well drilling, fast food and stitutional feeding outlets, prefabricated nd other housing systems, and building nd construction materials. An increas-g number of Saudi businessmen are w visiting the United States to arrange r collaboration in such enterprises.

UNITED ARAB EMIRATES

U.S. Export Growth Seen, Though At Slower Rate

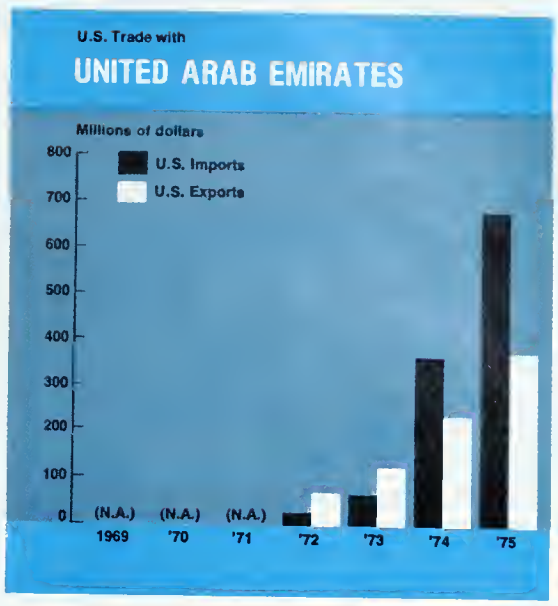
The strong trend in U.S. exports to the United Arab Emirates should continue, although at a lower rate of growth than in past years, according to S. Dickson Tenney of the Bureau of International Commerce. U.S. exports to the UAE in 1976 are expected to exceed $480 million, in comparison to $372 million in 1975 and only $230 million in 1974.

The UAE imports almost everything it needs. The market for U.S. products remains particularly strong for electric and nonelectric machinery, transportation equipment and construction materials. Cooling equipment remains much in demand as do tobacco products and automobiles. Although Japan, and to some extent the United Kingdom, continue to hold a strong position in the consumer goods market, demand has increased for U.S. products used in leisure type activities, most notably for boating and camping equipment and photographic equipment.

Prospects remain good for U.S. firms in the areas of architecture and engineering, primarily for firms with the willingness to spend considerable time and expense in one or more of the Emirates developing contacts with local officials. Some firms have signed contracts in Dubai and Sharjah, and others are investigating the two Emirates for possible use as a regional business center, but most firms are still located in Abu Dhabi. U.S. business firms will continue to be able to participate in UAE development because of our recognized technological strengths and because Americans are generally popular in the country.

Each Emirate has its own national budget but several of the individual Emirates are financially stronger than the UAE federation. Abu Dhabi, the richest and the one most interested in as well as financially committed to the federation, expects its 1976 oil earnings to exceed $4.6 billion. A large sum is allotted to support a major portion of the UAE budget, and through it, the poorer Emirates. Dubai, which expects to earn $1.2 billion from its 1976 oil exports, and Sharjah are the only other Emirates with sufficient petroleum exports to finance any large internal expenditures.

All of the Emirates are aware of the need to develop their infrastructure but there is a lack of integrated planning and often a duplication of efforts as each allocates part of its budget to development expenditures. A unifying factor which has become increasingly important in the last year is the UAE Development Bank which sponsors private, industrial,



and commercial enterprises, many in the poorer Emirates. By offering long term, low interest loans and consulting assistance to entrepreneurs, as well as undertaking feasibility studies if necessary, it serves as a central development office for those Emirates which are financially unable to undertake such activities.

Both Abu Dhabi and Dubai plan to develop industrial zones outside their principal cities. Jubal Dhana will be located approximately 100 miles west of the city of Abu Dhabi; Jebel Ali will be 17 miles east of Dubai. Although both projects provide excellent opportunities for U.S. firms, the possibilities will be stronger in Abu Dhabi where there is usually open bidding for projects. In contrast, Dubai usually awards desired projects to firms established in the area.

Both Emirates plan to build LPG/LNG plants, and Dubai tentatively plans to construct a refinery, a steel plant, aluminum smelter, fertilizer plant, and a factory for manufacturing cable. Some of these plants will be heavily dependent upon large amounts of relatively scarce gas, and will need a large labor force unavailable locally. The planning in Abu Dhabi is not as far advanced but proposals include a steel plant, aluminum smelter, a fertilizer plant and polyethylene plant. Infrastructure construction will include housing, in the area of both towns. U.S. consultants, planners and architects specializing in town planning and transportation should be in demand.

Other upcoming projects include expansion of the power generation distribution and desalination facilities in both Abu Dhabi and Dubai, construction of a large civilian international airport in Abu Dhabi and a smaller one in Fujairah, a military airport with three satellite fields in Abu Dhabi, and a sewage treatment system in Abu Dhabi. Portions of each project, including contracts for supplies, may already have been tendered but the construction and/or turnkey plant tenders are not yet ready.

MOROCCO

Expansion Continues; U.S. Exports Climbing

The outlook for U.S. sales to Morocco this year is bright, as an expanding number of American firms show interest in the increasing variety and value of business opportunities offered by Morocco's steadily growing market, according to Claude Clement of the Bureau of International Commerce.

Morocco's continued economic expansion in 1976 is assured on the basis of several key factors. After two near-disastrous crop years necessitating massive grain imports and seriously impacting Morocco's balance of payments, the outlook this year is for a good harvest. Morocco's ability to borrow substantial sums externally to keep its development efforts on track has been demonstrated by a recently-signed $300 million Eurodollar loan agreement, World Bank credits this year totaling $134.5 million, and $210 million in assistance from France. There is also a return of activity in the Moroccan private sector, which is showing signs of increased confidence and renewed investment interest.

Total imports increased 38 percent in 1975 to $2.7 billion, and are projected to top $3.2 billion this year. The United States will retain its position as Morocco's second leading supplier as U.S. exports rise 25 percent to $225 million this year.

Moroccan gross national product, estimated at $6.9 billion in 1975, is expected to grow 13 percent this year to $7.8 billion. Government investment expenditures in 1976 are budgeted at $2.5 billion, insuring continued economic growth and industrial expansion.

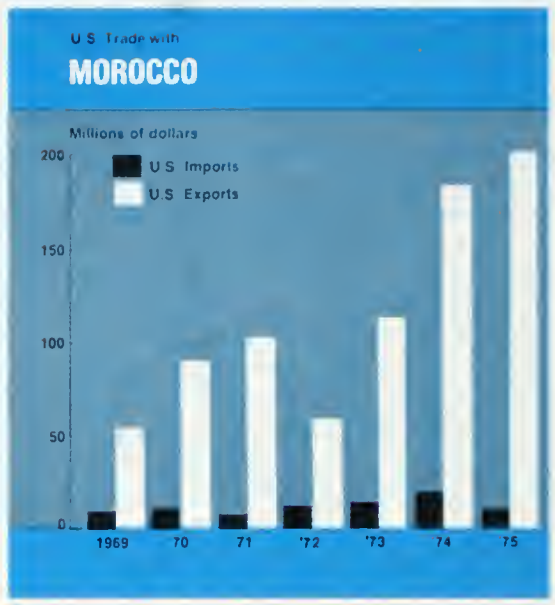
Morocco is now moving ahead with a number of major projects which offer significant sales opportunities. These include equipment for and construction of a major new phosphoric port at Jorf Lasfar, construction of several new sugar and beet mills, a $200 million expansion program for the ports of Casablanca and Mohammedia, erection of numerous educational institutes, and construction of badly-needed cement plants.

A number of modest new American investments in Morocco are in the process of being accomplished and others are in prospect. These include an automobile battery plant, a cast steel plant, a mattress factory and a pharmaceutics plant.

U.S. firms are involved in major new public works to an unprecedented degree.

The Oil Shale Corporation (TOSCO), under a consultancy contract for the development of Moroccan oil shale reserves, is currently processing samples of the shale in its Colorado test plant. Several U.S. consulting firms have been invited to submit proposals for the industrial sector of the 1978-82 development plan, now in the pre-preparation stage.

Morocco has signed a renewal of its Association Agreement with the European Community. The treaty, the result of several years of negotiations, provides for duty-free entry of many manufactured goods, preferential customs treatment for a long list of products, access to the European Development Fund, and improved social security status for Moroccan workers in the EEC.



TUNISIA

Economy Brightens; Investment Welcomed

Tunisia's economy seems brighter in mid-1976, compared to 1975, thanks to a stronger market for Tunisian exports and continued heavy government spending to round out the final year of the 1973-76 Development Plan.

Laron Jensen of the Bureau of International Commerce sees the U.S. sales picture as mixed: U.S. exports to Tunisia of chemicals and manufactured goods are up some 20 percent this year, largely because of a good market for pumps, tractors and construction/mining machinery. However, total U.S. exports to Tunisia during the first four months of 1976 ($18.5 million) are only half that of the same period last year. The explanation for this drop lies in slow sales of U.S. wheat and soybean oil, due to a good domestic cereals harvest and to Tunisian marketing difficulties for olive oil which caused the government to ban imports of competing vegetable oils.

Total Tunisian imports in 1976 will reach about $1.4 billion in value, up about 8 percent over 1975. Exports may rise slightly above last year's level, or some $800 million. The resulting deficit will be covered by tourist revenue, remittances from Tunisians abroad, and foreign private investment and loans, increasingly from wealthy Arab states.

Tunisian gross domestic product of about $4.4 billion in 1975 is expected to increase 11 percent this year in real terms. Inflation in terms of the average middle class market basket is estimated at about 10 percent annually.

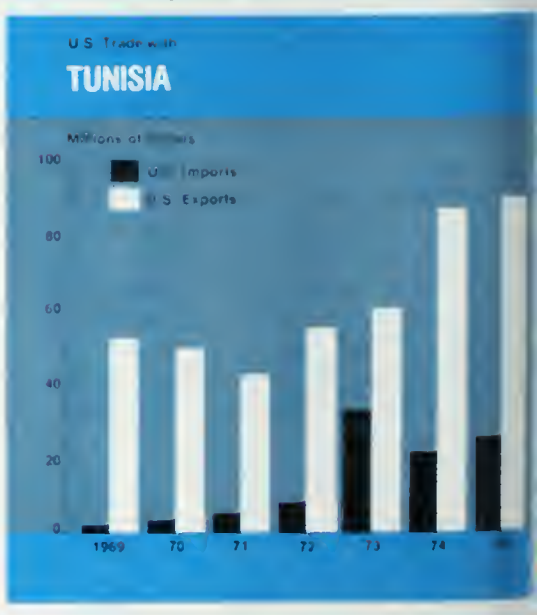
Tunisian economic planners are well into drafts, as yet unpublished, of the next five-year plan (1977-81), whose public and private investments will exceed $6 billion, double the current plan.

Tunisia signed a new association agreement with the European Community last Spring, providing a shot in the arm to Tunisian hopes for exports of traditional products such as olive oil as well as non-traditional manufactures produced locally by a growing number of Tunisian and foreign private direct investors taking advantage of a liberal investment climate. Textiles, shoes and light mechanical/electrical products lead the list.

Several new laws or administrative regulations have been issued in recent months which clarify existing policies on foreign exchange and importing/exporting, and which require that deadlines on international calls for bids be more "reasonable," i.e., more than the current average of a month.

Other laws under consideration would encourage establishment of regional offices of foreign firms as well as certain foreign banking operations in Tunisia and would simplify and unify the plethora of import paperwork which currently disadvantages U.S. marketers.

The U.S.-Tunisia Joint Commission, established last year, has held several meetings to discuss the above subjects among other things. American firms trading with Tunisia are invited to write the U.S. Department of Commerce, BIC CAGNE, Washington, D.C. 20230 with suggestions which could be usefully raised through the Joint Commission.



IRAQ

Modest Increase Seen In Trade With U.S.

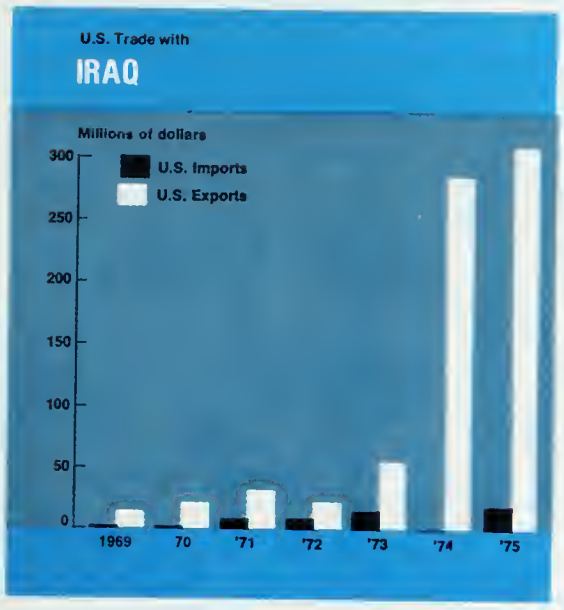
U.S. direct exports to Iraq this year are proceeding at the same rate as in 1975, when they totaled $310 million and accounted for some 6 to 7 percent of the country's $5 billion import market. There are good prospects, however, for the attainment of $350 million in exports to Iraq for the entire year, according to George Beck of the Bureau of International Commerce.

American firms are competing well in new export fields, a current example being the first sale of some $40 million in frozen chicken. The recent success of the Lummus Corporation of New Jersey, together with a West German firm, in winning the design and construction project for Iraq's $1.1 billion petrochemical complex illustrates the rewarding opportunities available to companies which actively pursue contracting leads in the dynamic Iraqi market.

Despite much evidence that Iraq must draw increasingly on U.S. technology, realization of trade potential is hampered by the problem of establishing effective commercial contacts. A number of U.S. suppliers now serving Iraq through intermediaries may have difficulty in complying with the February 1976 law requiring the registration of their agency contracts and the provision of financial guarantees for their agent's activities in Iraq. U.S. companies seeking to penetrate the Iraqi market will have to increase their direct contacts with Iraq Government contracting and purchasing agencies by more correspondence and by more frequent visits of U.S. headquarter or regional personnel.

Major new market opportunities in Iraq will become more apparent with the imminent publication of the long-delayed Five-Year Economic Development Plan (1976-80) which reportedly calls for development expenditures of $33 billion. Advance reports indicate that large expenditures are scheduled for irrigation, flood control and electrical power generation; livestock production (cattle and poultry); rural and urban electrification; desert reclamation; grain storage; petrochemicals; heavy industry (iron, steel, and aluminum); and other industries food, cement, construction materials, fertilizers, pharmaceuticals, auto and truck assembly and agricultural machinery production). There will also be enormous projects in transportation, housing, health and social welfare, and education.

Although France, Italy, Spain, Yugoslavia, Japan, Poland and Romania were favored with most of the $3.5 billion in major contracts awarded by Iraq in 1975, many U.S. companies are obtaining a share of this business as subcontractors or equipment suppliers, often through their subsidiaries or affiliates. American firms interested in exploring this other avenue of trade with Iraq should note that Yugoslavia has now received contracts well exceeding $1 billion, including responsibility for the first phase ($325 million) of the $2 billion agro-industrial complex at Dudjeila, for a $180 million dam, and for construction of six hotels in Iraq. Yugoslav companies operating in Iraq have expressed interest in being contacted by American suppliers.



LIBYAN ARAB REPUBLIC

Opportunities For U.S. Firms That Try Harder

The Libyan market for imported capital equipment and foodstuffs is strong and represents important potential for U.S. firms which do the requisite homework on market conditions, according to Laron Jensen of the Bureau of International Commerce.

The Libyan Arab Republic (LAR) has entered the first year of its 1976-80 Development Plan, which projects total government spending of $24 billion over the five-year period. The 1976 development budget of $4.4 billion stresses agriculture (particularly irrigation and other water works), mining and manufacturing, housing, education and municipal improvements.

Crude petroleum contributes the bulk of export earnings, which were estimated at $6.5 billion in 1975. Oil production is increasing from a 1975 low of about 1.4 million barrels per day (b/d) to nearly 2 million b/d in early 1976. Oil earnings vastly exceed importing needs and capacities, thus ensuring a strong liquidity position (foreign exchange reserves totaled $2.3 billion in March 1976).

Libyan imports, which are purchased primarily by government agencies but also by the Libyan private sector, increased some 25 percent in 1975 to about $3.5 billion in value. Capital goods and transport equipment make up about 60 percent of total imports.

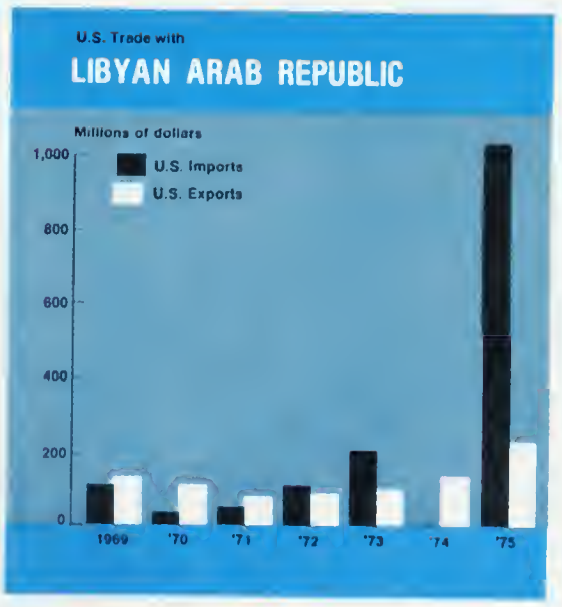
Italy, West Germany, France, Japan and the United Kingdom have been the country's most important trading partners in recent years. U.S. exports to LAR vary considerably, increasing 70 percent in 1975 to $232 million and decreasing 46 percent in the first four months of 1976 compared to the same period a year earlier. The primary reason for the recent decline in U.S. exports is simply the lack of airplane deliveries and reduced U.S. iron and steel products exports so far this year. Other U.S. export commodities are maintaining or improving upon their 1975 levels.

United States imports may exceed $2 billion in 1976. The growing U.S. trade deficit offers incentives to U.S. firms to try harder in a market which is essentially familiar with and receptive to superior technology offered by U.S. firms.

Best U.S. sales prospects have been identified by the American Embassy, Tripoli, as follows: motor vehicles, building materials, power generating machinery and equipment and services for agriculture, transport, communications, health care, education and laboratories.

The Libyan Arab Republic represents a very good market for enterprising U.S. manufacturers, consultants and contractors who are willing to negotiate firmly for potentially lucrative contracts. American businessmen are welcomed on the same terms as other foreigners who propose business relationships.

Although international calls for bids on Libyan projects are common (large tenders are announced through Commerce's TOP program), it pays to write directly to Libyan Government agencies, enclosing literature and data about experience.



FAR EAST-SOUTH ASIA AREA: OUTLOOK BRIGHTENS MARKEDLY

Exports To Industrial Nations On Uptrend

Most of the economies of the Far East and South Asia, whether developed or developing, depend heavily on their exports to the United States and to other leading industrial nations. Now that these exports are again displaying a rising trend, economic prospects throughout the area are improving markedly, according to J. Robert Wilson of the Bureau of International Commerce.

After three years of substantial gains, U.S. exports to the area stagnated in 1975, mainly because of declines in U.S. exports to recession-ridden Japan and Australia. With the Japanese economy on the road to recovery, Japan's need for additional imports, together with improved economic conditions throughout the area, signals a resumption of U.S. export gains generally.

Except for Indonesia, a major oil producer, all the countries in the area have to cope with the high cost of imported petroleum. This places a severe strain on their balance of payments and, in some cases, acts as a constraint on their ability to pay for other imports. The problem, however, appears to be manageable, even for the less developed countries.

Japan, which is surpassed as a market for U.S. exports only by Canada, purchased $9.6 billion worth of American goods in 1975. Recovery from Japan's longest, most severe postwar recession got under way early in 1975, then appeared to falter, but is now proceeding apace. Japanese exports, especially of cars and television sets, have risen impressively, leading to gains in industrial production. With profits on the rise, some recovery in investment is expected. Overall the GNP may grow by about 6 percent in real terms in 1976.

The rate of inflation, as measured by consumer prices, has eased to just under 10 percent per year. This is a striking improvement over the rate of 24 percent that prevailed in 1974. Continued success in holding the line on inflation will serve to boost real wages, which in turn should be reflected in an increase in consumer spending.

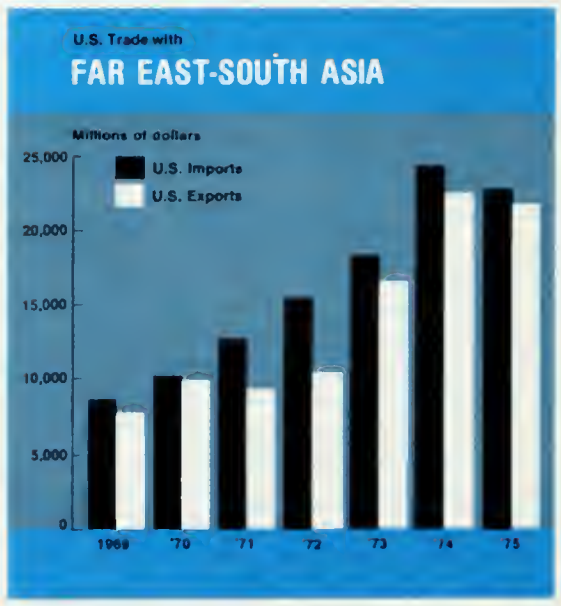
The prosperity of many of the Asian countries is closely related to the health of the Japanese economy. Four of them—Australia, Korea, the Philippines and Indonesia—direct over 30 percent of their exports to Japan. For both Australia and Indonesia the Japanese market is more important than that of the United States; in the case of Korea and the Philippines the American and Japanese markets are roughly of equal importance. Japan also provides a significant amount of loans and grants to the developing countries of Asia.

In 1975, **Australia** remained the second largest U.S. market in the Far East despite the deep recession which pulled imports from the United States down 15 percent to $1.8 billion. Some improvement is expected in 1976, but its rate depends on the strength of the present recovery of the Australian economy. Though there is still economic uncertainty, a recent Australian survey of industrial trends showed, since December, a doubling in the number of respondents expecting improved business conditions. Much will hinge on policies of the Liberal/National Country Party coalition, in office since December.

The new government inherited a high federal deficit, serious unemployment, and a record balance of payments deficit. However, such measures as a new 40 percent investment allowance are expected to stimulate expenditures for plant and equipment.

Inflation has been reduced from 17 percent to 13 percent, but this rate is generally regarded as unacceptably high for a country so well endowed with food and raw materials, including oil, as Australia. The present government is giving high priority to combating inflation, both by reducing budgetary deficits and by restraints on union wage increases.

New Zealand also has a new government that is coping with a number of economic problems. In order to reduce the large current account deficit in its balance of payments, the government is continuing an import deposit scheme designed to dampen speculative imports. New Zealand's economic well-being depends heavily on its agricultural exports and prospects for their expansion are dim in the short term.



Economic conditions are buoyant in **Korea** and the **Republic of China** (Taiwan), both of which have developed an impressive capability to export a wide variety of manufactured goods. The Korean economy is expected to grow by at least 8 percent this year. Export growth will reduce its trade deficit and the rate of inflation should be halved to about 13 percent. In 1975 Korea imported $1.8 billion of goods from the United States, a market share of 26 percent. Among the many promising areas for increased U.S. sales are machinery and equipment, avionics and communication equipment.

Taiwan's exports to its main trading partners, the United States and Japan, have been expanding rapidly this year, resulting in a moderately favorable balance of trade. Export growth is expected to generate an increase in real GNP in 1976 of over 6 percent and inflation will be minimal. The textile and electronic industries are spearheading the advance. Demand for U.S. industrial equipment and raw materials is expected to strengthen in the coming months. The U.S. Trade Center, which was opened in Taipei in 1974, is actively assisting American exporters in marketing their products.

Economic prospects in **Hong Kong** and **Singapore** are also promising. Hong Kong's gross domestic product is expected to increase 10 percent in 1976. The island, with its political stability, duty-free status and negligible inflation, offers a hospitable climate for a large number of American firms. U.S. export opportunities abound for a variety of American exports. Singapore enjoys a strong balance of payments position and the economic outlook is excellent, despite a slump in the shipbuilding and oil refining industries.

The U.S. Regional Trade Center in Singapore, with newly enlarged facilities, serves both the island's growing market and neighboring countries.

Malaysia's trade outlook is improving as demand for its exports of rubber, tin and timber strengthens. There is a ready market for a variety of American goods, including laboratory instruments, timber processing equipment, business machines and process control instruments.

U.S. exports to the **Philippines** increased 11 percent in 1975 and, although the problem of a sizable balance of payments will not be completely solved this year, opportunities for further increases, particularly in the capital goods area, are present. The 1975 GNP growth rate of 6 percent is likely to be repeated. In order to carry out its extensive development plans, the government will endeav-

or to attract additional foreign investment.

Thailand is adjusting to the new situation following the withdrawal of the large American military contingent. Although the economy grew by 6.4 percent last year, it experienced its first balance of payments deficit since 1971 as a result of decreased exports of rice, tin and rubber. Opportunities are promising for U.S. firms that supply equipment for agribusiness, construction, mining, food processing, and power generation and transmission.

In 1975, U.S. exports to **Indonesia** increased 53 percent and further expansion this year is expected to raise them to over $1 billion. Despite this high level, the United States will continue to have a large deficit in its trade with Indonesia resulting from petroleum shipments, which account for 86 percent of U.S. imports. Indonesia is recovering from the financial crisis arising out of the failure of Pertamina, the state oil company, to secure adequate foreign credits. Indonesia receives extensive foreign aid from a variety of governments and international organizations. Machinery and equipment and agricultural commodities account for over half of U.S. exports to Indonesia.

Bountiful harvests have led to a remarkable improvement in the prospects for the economy of **India**. Industrial production is rising, inflation is minimal and the balance of payments has improved. U.S. exports rose 70 percent in 1975 to $1.3 billion and further increases are predicted. The diminished need to import foodgrains and fertilizer implies that additional foreign exchange will be allocated to imports of industrial machinery and equipment.

Pakistan continues to suffer from serious balance of payments deficits, which are aggravated by the multiple increases in the price of oil. With 30 percent of Pakistan's export earnings earmarked for external debt service, prospects for an expansion of imports are closely related to the amount and terms of the foreign aid that Pakistan receives from various countries and international lending institutions.

A complete embargo is in effect on transactions with **Cambodia** and **South Vietnam**, the latter now incorporated in the Socialist Republic of Vietnam. Inquiries as to licensing procedures should be referred to Foreign Assets Control, the U.S. Treasury Department. **Laos** is classified as a "Y" country for export administration purposes– there are limits on the kind of U.S. goods that may be sent there.

Papua New Guinea, which achieved its independence on Sept. 16, is expected to be a good customer of the United States and hospitable to investment by American firms.

JAPAN

Economy In Transition, Points Toward Recovery

Japan apparently has pulled out of its longest and most stubborn recession and already has overcome most problems associated with the supply and cost of oil, inflation, balance of trade, and balance of payments deficits, according to Arthur Miyakawa of the Bureau of International Commerce. Additionally, cautious optimists such as the Bank of Tokyo state that "the economy is getting out of the temporary lull in its recovery and strengthening the trend toward real recovery." There are contrary views; but the economy is in transition and definitely pointing toward recovery.

Japan's real gross national product increased more than 3 percent in fiscal 1975 which ended March 1976, to $310 billion ($500 billion nominal), exceeding the government's forecast of 2 percent. Japan's January-March real GNP, 3.5 percent above the October-December quarter, was based on the exceptionally strong performance of nearly all domestic sectors but particularly on increases in personal consumption and housing investments that were weak in the past.

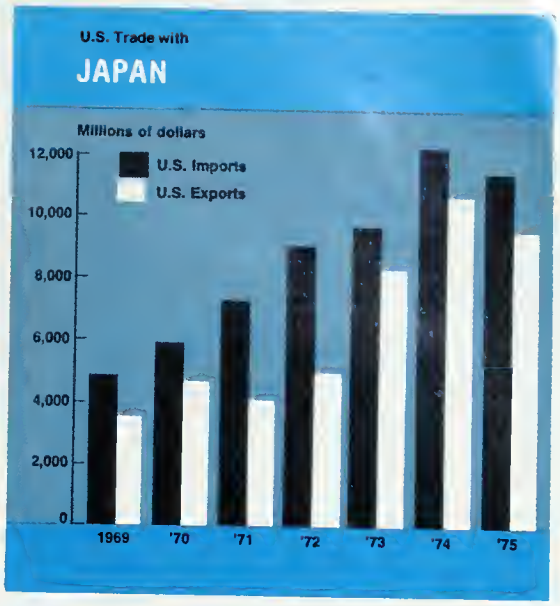
Trend toward pre-depression philosophy

Under these somewhat spotty yet brightening economic conditions, most Japanese businessmen are beginning to return gradually to the pre-depression philosophy of looking ahead one year, rather than one quarter. They are now cautiously optimistic, yet unable to eliminate the fear or threat of another economic collapse or renewed inflation.

As a consequence of last year's unsettled economic conditions, Japan's imports from the United States were down by more than 8 percent compared with 1974. For the first five months of this year, Japan's imports total $4.7 billion with $5.1 billion for the same period last year but with the expected continued Japanese recovery, imports from the United States should expand somewhat over the remaining months of this year.

Japan's chief imports from the United States remain concentrated in the agricultural, forestry, chemical, industrial raw materials and machinery sectors and include coal, nonelectric machinery, corn, logs and lumber, and several chemical products.

Japan's exports to the United States in 1975 totaled $11.2 billion, down a significant amount from 1974. For the first five months of this year, Japan sent to the United States $6 billion or 39 percent more than for the same period last year. Furthermore, the rate of exports appears



to be increasing and because Japan's imports of U.S. products have not kept pace, the bilateral trade deficit for the first five months of this year is already nearly $2 billion, compared with $771 million for the same period of 1974.

The U.S. share of Japan's import market has experienced a steady deterioration, especially when Japan's imports of crude petroleum are included. Over the past 10 years, the U.S. ratio has fallen from 28 percent in 1966 to 20 percent last year. Japan's share of exports to the United States also shows a similar trend falling from 30 percent in 1966 to 21 percent in 1975. Looking ahead 5 to 10 years, however, Japan's imports of machinery and high technology equipment are expected to account for a larger share of its total imports.

Because of the relatively large boost of nearly 12 percent in Japan's exports to the world for the first five months of this year compared with the same period last year, the Embassy estimates that for the full year, Japan's favorable balance of trade could approximate $11.8 billion compared with $5.1 billion for the previous year. According to the same forecast, its current account balance of payments is expected to be favorable.

As promised earlier, Japan removed its inward investment restrictions for the manufacture of fruit juices and photographic film. It now controls the inward foreign direct investment in the four categories of agriculture, forestry, and fisheries; oil refining and distribution; leather and leather products; and mining.

Japanese industry continues to stress greater automation; that is, time and labor saving equipment to increase productivity and lower labor input. In the industrial sector, therefore, such product categories as computers, components, peripherals, testing and measuring equipment, food processing and packaging equipment in addition to pollution control equipment and consumer goods are desired and have the best sales prospects.

AUSTRALIA

Although Recovery Lags, Business Is Optimistic

Although Australia's economic recovery has lagged, a recent Australian survey of industrial trends reveals that the proportion of respondents expecting an improved business climate is more than double that recorded for the previous survey taken in December. Optimism is expressed for increased capital expenditure this year, especially for investment in plant and machinery. U.S. exports have held up reasonably well, and the long-term prospects are moderately good for expanding markets, reports Nancy H. Keely of the Bureau of International Commerce.

After its election victory over the Labour Party in December, the Liberal/National Country Party Coalition Government took various measures designed to stimulate the economy, which had turned down in mid-1974.

These measures include a new system of family allowances and tax indexation, which should increase the buying power of lower wage earners. The government's emphasis on stimulation of investment through such measures as easing the raising of expansion and investment loans, and introduction of a 40 percent investment allowance for industry on new plant and equipment, should also provide attractive opportunities for U.S. exports of capital equipment.

Finally, early indications that the present government might adopt a significantly more protective trade policy than its predecessor have not materialized, and a decline in the number of requests for protection has been noted.

In order to restrain inflation, the government has announced that it will sharply reduce public sector expenditures and will rely instead on an investment-led recovery to ameliorate unemployment. The Prime Minister has declared that restoring strong and stable growth to the private sector will solve the country's main economic problems. The gross domestic product, in current prices, amounted to A$63.7 billion for CY 1975, a gain of 0.8 percent in constant prices as compared with the preceding year.

Although Australia's balance of payments (net monetary movements) registered a deficit of US$907 million for CY '75, the balance of trade surplus was US$2 billion, up dramatically from US$75 million for the preceding year. Reserves of gold and foreign exchange totaled US$3.3 billion at the end of CY '75.

The Australian Ambassador to the United States, N. F. Parkinson, stated recently that his government wishes an increased role for foreign investment. New foreign investment guidelines were issued in April by the government. Although long-term goals of the guidelines continue to be maximum Australian ownership and control of the economy, it is expected that there will be greater flexibility in implementing the guidelines than in the 1973-75 period.

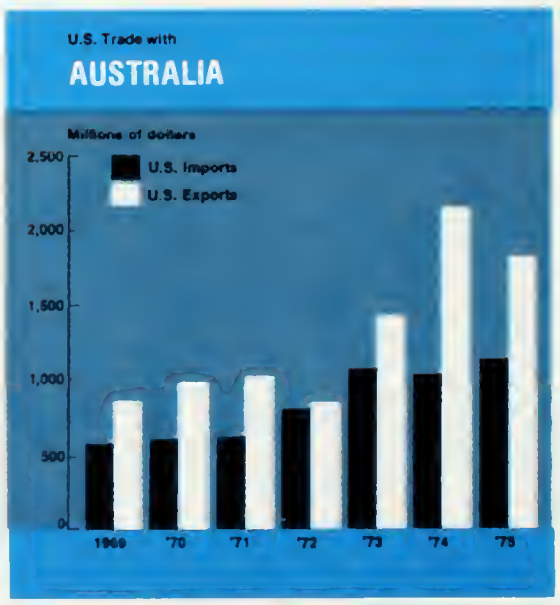
The new guidelines permit a maximum of 25 percent foreign ownership in new uranium mining projects (up to yellowcake stage), as compared with the previous Labour Government's standard of total Australian ownership. A 50 percent Australian equity share applies to new foreign investments exceeding A$1 million (about US$1.3 million) in other key areas (production and development of oil, natural gas, and other minerals; agricultural and pastoral projects; and fishing and forestry ventures).

U.S. direct investment in place in Australia in 1974 totaled US$4.7 billion, contributing a return of about US$400 million in that year.

The United States is Australia's leading supplier, having about a 21 percent share of that country's imports. U.S. exports amounted to about US$2 billion for FY '75.

Products that offer exceptionally good prospects for U.S. exports include: printing and graphic arts equipment, agricultural equipment, metalworking and finishing machinery, biomedical equipment, and industrial and scientific instruments. Other good prospects include: computers and peripheral equipment, communications equipment, business machines, materials handling equipment, electronic components, pollution control equipment, food processing and packaging equipment.

The U.S. Trade Center in Sydney is mounting the following exhibitions: machine tools, Oct. 12-15; computers and peripherals, Nov. 8-12; educational training aids, March 28-April 1; outdoor recreation, May 9-13; security and safety equipment, July 11-15.



INDIA

Turnabout In Economy Generates Optimism

India has survived its most difficult crisis since independence and a remarkable turnabout has occurred in the Indian economy during the past year. Record crop yields, along with firm but pragmatic government-imposed policies have generated broad-based optimism for a resurgence of economic growth during the remainder of 1976 and into 1977, according to Monroe E. Aderhold of the Bureau of International Commerce.

The improved economic situation has provided the government with the confidence and flexibility required to encourage new capital investments and focus on improving its balance of payments position. Under current government policies, there is a national consciousness of discipline, hard work, efficiency and sense of direction.

Power, transport and material bottlenecks have been virtually eliminated and are unlikely to occur in the immediate future. Industrial production increased 4.5 percent in 1976 and improvement in the balance of payments position has permitted the government to allocate foreign exchange for increased levels of imported raw materials, equipment and spare parts.

India is one of the major trading partners in Asia for the United States, with two-way trade reaching a record of $1.9 billion in 1975. U.S. exports to India totaled $1.29 billion during this period. Foodgrains represented about 60 percent, with chemicals, machinery, transportation equipment, instrumentation and spare parts and operating supplies comprising the balance. Only $200 million in foodgrains were shipped to India last year under concessional PL 480 terms; the balance was on commercial terms.

India's total import requirements are expected to reach $6.5 to $7 billion during 1976 and 1977 and the United States can reasonably expect to obtain 20 to 25 percent of the market. A trade deficit of about $1.6 billion is anticipated in 1976, which will be offset by disbursements from the World Bank and countries committed to assisting India with its economic and social development.

The current national budget reflects pragmatic policy changes aimed at improving conditions to stimulate capital investments and for overall economic growth. A relaxation of industrial licensing policies permits the businessman in the private sector greater flexibility in determining production levels and pricing policies. The authorities also have liberalized controls and provided incen-

tives for expansion of export industries.

Overall, there is a definite upward trend in the industrial sector. Production of capital and basic intermediate goods—such as coal, petroleum, steel, aluminum, fertilizer and cement—has increased substantially. However, tight credit policies have imposed demand restraints on industries which produce textiles, consumer durables, housing and luxury items. Of particular importance has been the recent discovery of a huge offshore oilfield in the Arabian Sea which was brought into production in record time and will yield an estimated 2 million metric tons by the end of the year, increasing to about 10 million tons by 1980. Priority development of an iron ore deposit will involve about $650 million in engineering services, mining and ore processing equipment.

Indian foreign trade policies are designed to restrict importation of luxury items and products considered nonessential for national priorities and economic goals. Import licenses are generally denied for products manufactured locally in sufficient quantity to meet domestic demand. However, authorities are pragmatic and flexible. Import licenses and foreign exchange are readily available for equipment, technology and raw materials for priority industries and manufacturers of products which are exported. U.S. suppliers to industries related to mining activities, petroleum exploration and production, power generation, scientific research, industrial processing, communications, transportation and medical services will find good markets in India.

The policy of the government toward foreign investments, royalties and licensing remains selective but flexible. There are attractive opportunities for U.S. firms which are recognized leaders in their fields and can offer products, services and equipment designs to fill technological gaps in India. Also, authorities are eager to receive proposals for industrial ventures which are export oriented or involve projects in third countries.

TAIWAN

Economy Trends Upward, '76 Trade Surges Ahead

Despite the fact that 1975 saw two-way trade in the Republic of China (Taiwan) fall 10.7 percent below the 1974 total, the trend for the economy during the year was generally upward, Peter Wilson of the Bureau of International Commerce reports. As the world economy improves and business activity picks up in the United States, Taiwan's chief market, prospects are good that the rising trend will continue.

The Republic of China's total trade in 1975 was $11.25 billion, a drop of $1.35 billion from 1974. With imports of $5.93 billion (c.i.f.) and exports of $5.32 billion (f.o.b.), Taiwan experienced a trade deficit of $610 million, an improvement over the $1.3 billion deficit recorded in 1974. Foreign trade surged ahead in April after a pause in March of this year. Exports totaled $2.38 billion on a customs basis for the January through April period—an increase of 53 percent over the same period in 1975. At the same time, imports increased by 25 percent to $2.30 billion, resulting in an $83 million favorable trade balance. Foreign exchange reserves increased by $83 million in April to a healthy level of $1.97 billion.

Efforts to diversify foreign markets seem to be bearing fruit, as sales to secondary markets increased both in absolute and percentage terms during the past year. Nevertheless, the United States remained Taiwan's largest foreign customer with imports of $1.9 billion in 1975, a decrease of 0.8 percent from 1974. Japanese purchases totaled $700 million. Together, the United States and Japan make up 47 percent of Taiwan's total export sales.

Japan continues to hold the largest single share of Taiwan's import market, with sales in 1975 of $1,801 million and a market share of 30.4 percent. Purchases from the United States for the year were $1,649 million, 27.8 percent of total imports. At the same time, the U.S. share of the market improved by 3.7 percent.

Because the Republic of China has few natural resources, the composition of its imports tends to reflect its exports, with the industrial equipment and supplies required for export industries making up a significant share. Major categories of imports last year included machinery and tools, $1,056 million; crude oil, $620 million; chemicals, $611 million; electric and electronic supplies, $535 million; basic metals, $510 million; transportation equipment, $443 million; and raw cotton and synthetic fiber, some $221 million.

The trade outlook for 1976 is bright. Mildly optimistic projections for a 16 percent increase in total trade volume have recently been revised upward as a result of the extremely strong performance during the first four months of the year. The newly revised estimates now call for a total trade volume exceeding $15 billion—an increase of 35 percent over 1975. The new breakdown calls for $7.5 billion in exports and $7.7 billion in imports, and results in a trade deficit for the year of only $200 million.

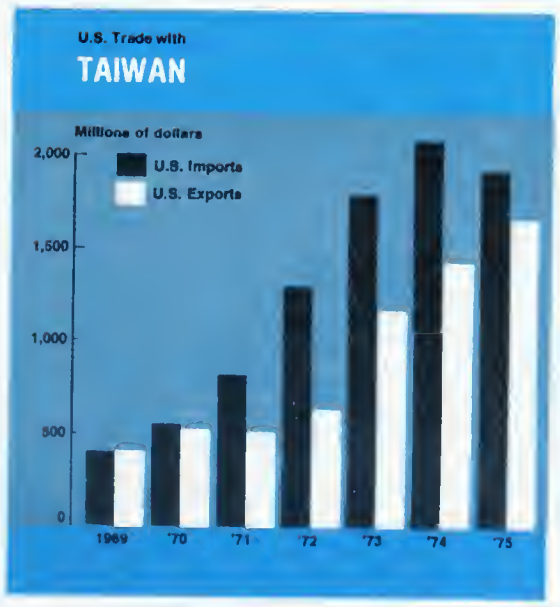
Partly as a result of the strong trade outlook, leading economists and government officials remain optimistic about the general economic recovery. Taiwan's GNP is expected to increase by 6.4 percent in real terms this year.

The textile industry should register the greatest increase in production; industries such as electrical and electronic products also are doing very well.

With the continuing upswing in Taiwan's economy, demand for imports of U.S. industrial equipment and supplies and raw materials should strengthen.

Goods with the best sales potential include electronics production equipment, electronic components, computers and advanced business equipment, food processing and packaging equipment, pollution control equipment and energy systems.

The Commerce Department opened a Trade Center in Taipei in 1974. Designed to provide a wide range of services to the U.S. businessman interested in marketing his product in Taiwan, the Center offers an ongoing program of trade promotion events which includes exhibitions, technical seminars, catalog shows, trade missions, and facilities for between-show promotions by individual firms. Upcoming events will feature process control equipment, communications equipment, advanced business equipment and systems, shipyard/shipboard equipment, automotive services equipment, machine tools, and pollution control equipment.



HONG KONG

Solid Growth Predicted As Economy Rebounds

The second half of 1975 saw a major turnaround in the Hong Kong economy, as it reacted to the upturn in world trade, and this trend should continue through 1976. The Hong Kong Government estimated that the gross domestic product growth rate for 1975 was .8 percent. This year should see a rate of 10 percent, Harry Stringer of the Bureau of International Commerce reports. The major external factors contributing to Hong Kong's recovery in 1976 are increased demand, especially in the United States, and stable or decreasing world commodity prices.

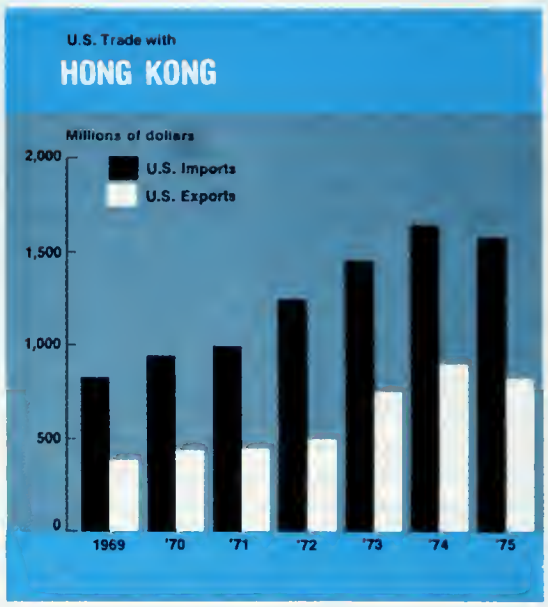
Hong Kong has also achieved an enviable record on the inflation front. The General Consumer Price Index rose only 1 percent in 1975 and this trend should continue this year.

The U.S. share of Hong Kong's imports fell by 14.3 percent in 1975 to 12 percent of total imports, with China and Japan the leading suppliers. The fall in the U.S. market share was due primarily to declines in cotton imports from the United States. Prospects for U.S. cotton in 1976 appear brighter because of tight world supplies and a greatly increased textile production capacity in Hong Kong.

Hong Kong's strongly pro-U.S. orientation and its duty free status combine to make it an excellent potential market for U.S. products. This was demonstrated last October at the American Fortnight, a series of commercial exhibits and cultural events, when over $20 million in U.S. goods reportedly were sold. In 1976 U.S. exports to Hong Kong should continue to be strong in electrical machinery sales, scientific instruments, photographic and optical goods, watches and clocks, textile yarn and fibers, fabrics and made-ups, transport equipment, chemical products, unworked precious and semi-precious stones, tobacco, cereal, fruits and vegetables.

Political stability, good transportation and communications, freedom from government interference, and low tax rates all favor Hong Kong as a site for investment by American companies either for manufacturing, services, or regional offices. The disadvantages are the high cost of land and the high cost of labor compared to other East Asian countries. However, these are ameliorated by the high productivity and skills of the labor force, the exceptionally small number of work stoppages, and the Hong Kong Government's policy of making land available at lower market rates to high technology industrial investment. There are 550 U.S. firms operating in Hong Kong, of which 106 are engaged in manufacturing, representing over 40 percent of foreign industrial investment in Hong Kong.

Upcoming U.S. trade promotional events will include a communications equipment trade mission in September, a machine tool trade mission in November, a packaging equipment technical seminar in March 1977, and a major trade fair of business equipment in April.



INDONESIA

Despite Economic Problems, Trade With U.S. Expands

The strong upward trend in U.S. trade with Indonesia continues in 1976 despite Indonesia's economic problems arising from the financial woes of the state oil company, Pertamina, M. Virginia Webbert of the Bureau of International Commerce reports.

U.S. exports of $490 million for the first five months were 40 percent higher and imports of $1,185 million were 45 percent higher than in the comparable period last year. While U.S. export growth was at a slower pace than in 1975, exports in 1976 should well exceed $1 billion while imports may reach $3 billion as the United States becomes an increasingly important customer for Indonesian oil. In 1975, crude oil and products comprised 86 percent of total U.S. imports from Indonesia.

Indonesia is pulling out of the financial crisis of 1975 when Pertamina failed to secure additional foreign credits for its overly ambitious investment program and to repay outstanding short-term debts. While the government's bail-out operation reduced foreign exchange reserves and necessitated new medium-term borrowing which will raise the debt service ratio and slow down implementation of planned development projects, Indonesia should be able to live with its balance of payments constraints in the next five years. Inflation in 1976 will probably be within the targeted 20 percent ceiling.

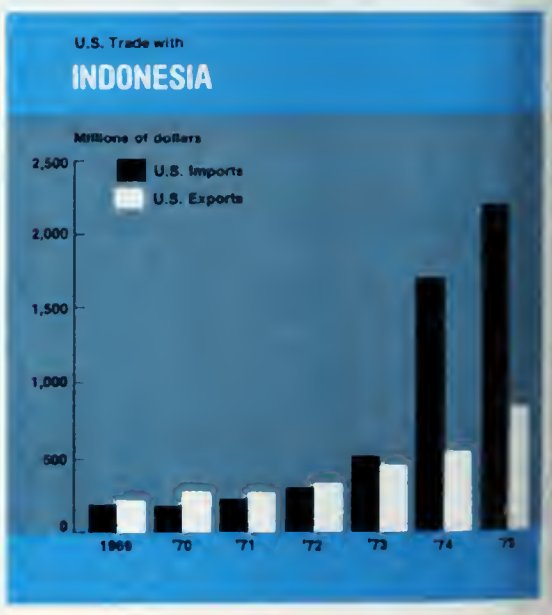
In FY 1975/76 (Indonesian fiscal year ending March 31) net official reserves declined by $364 million to $557 million. The balance of payments situation was aggravated by the slight decline in export earnings and a $59 million decline in net direct foreign investment due mainly to recession in overseas markets. Indonesia's uncertain investment climate also affected investment.

In 1975 (Jan.-Dec.), Indonesia's exports fell by 5 percent to $7,103 million, while imports rose by 23 percent to $4,712 million.

The balance of payments situation is expected to improve in FY 1976/77, with a projected increase in international reserves of $500 million. Export earnings are rising moderately through higher taxes on foreign oil companies and improved returns from other exports. On April 1, the government moved to stimulate non-oil exports by reducing export taxes and providing other incentives. Imports will probably increase by more than 20 percent.

In FY 1976/77 Indonesia will receive $1.4 billion in concessional and semi-concessional aid, of which the United States will provide about $100 million. Indonesia seeks $1 billion additional in commercial credits.

Of total U.S. exports of $810 million in 1975, $318 million were machinery and $118 million agricultural commodities. Continued purchases of these, supported by U.S. aid and Eximbank lending, and U.S. oil investment, will contribute to U.S. export growth in 1976. Best sales prospects include capital goods for mining, cargo and materials handling, timber processing, textiles, electric power and telecommunications. To promote U.S. exports, Commerce plans to hold a technical sales seminar on mining production and processing equipment in Jakarta in October.



KOREA

Economy Recovering, New Five-Year Plan Detailed

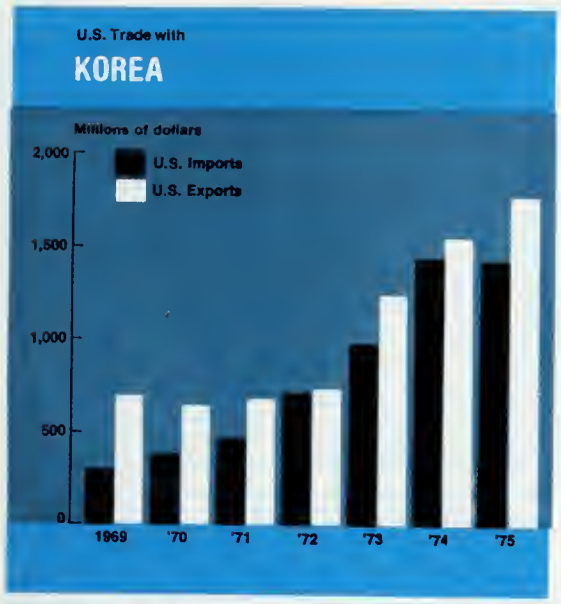
Propelled by an exceptional rebound in export demand, the Korean economy is strongly recovering from the combined effects of the oil crisis and subsequent international recession, the Bureau of International Commerce's Michael Schneider points out. For the first two months of 1976, the industrial production index was 34.9 percent above the same period in 1975, and the large increase in export letters of credit received in the first quarter of 1976 points to likely increased investment in manufacturing capacity and general economic buoyancy. After two years of extensive short-term borrowing, net long-term capital inflows are expected to cover the current account deficit of $1.5 billion projected for 1976.

Although paying a price in terms of the deterioration of its balance of payments position and a high level of domestic inflation, the Korean economy averaged annual real growth of 8 percent over the past two years, and that rate will almost certainly be maintained or exceeded in 1976. The strength of the current export surge should also permit Korea to achieve its goal for this year of a trade deficit of less than $1 billion, contrasted with a deficit of $1.6 billion in 1975, and a diminished rate of inflation in the order of 13 percent, almost half the 1975 rate of 24.4 percent.

Given Korea's relatively strong performance during the past several years and the excellent prospects for this year, U.S. industrial sales should increase during the remainder of 1976, particularly those of capital goods. Moreover, the investment climate remains favorable.

The Government of Korea has just made public details of its Fourth Five-Year Economic Development Plan, for 1977-81. The Plan foresees a yearly increase in real GNP of 9 percent and a per capita GNP at the end of the period of $1,284 in current prices, roughly double the 1975 figure of $530. On the basis of 1975 prices, exports in 1981 are to reach $13 billion and imports to attain a level of $12.4 billion. To support the investment objectives of the Plan, the government estimates that $10 billion in foreign capital inflows will be required. Support for strategic and heavy and chemical industries will be intensified.

The U.S. share of the growing Korean market expanded to 25.9 percent last year, on the basis of exports valued at $1.8 billion. U.S. machinery and equipment with the greatest incremental sales potential over the next few years are, in order of priority: metalworking and finishing equipment, construction equipment, energy systems, electronics equipment (for production and testing) and electronic components, laboratory instrumentation, process control equipment, textile and apparel machinery, health care industries equipment and instrumentation, and computers and business equipment and systems. Other promising areas are avionics and ground support equipment for civil aviation, communications equipment and systems, pollution-control instrumentation and equipment, and food processing and packaging equipment.



NEW ZEALAND

Government Steps Brighten U.S. Export Prospects

The expected moderate rate of recovery in the world economy should ameliorate New Zealand's mild recession. Government policies to increase business and farm profits and stimulate investment should provide increased opportunities for U.S. exports, reports Nancy H. Keely, Bureau of International Commerce.

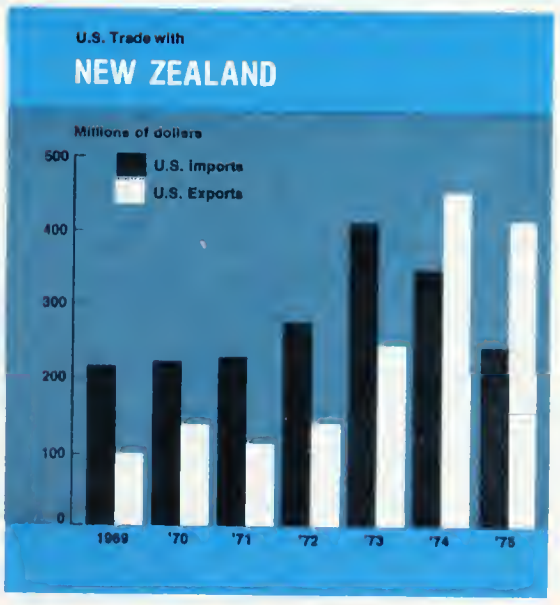
The deteriorating economy, accompanied by large government deficits, loss of foreign exchange reserves (US$576 million, end of CY '75—down from almost US$870 million, end of CY '73), and heavy borrowing abroad helped the National Party gain its decisive November election victory over the Labour Party. The new government is assigning priority status to improving the country's balance of payments. The adverse trend, beginning with 1974, stemmed largely from declining demand for New Zealand exports of meat and dairy products accompanied by sharply rising prices for imports of petroleum products, industrial supplies, and agricultural equipment.

Although for FY '76 the gross national product is expected to have increased to about US$10.4 billion, in terms of current prices, real GNP growth is expected to decline from 4.5 percent for the year ending March 1975 to a negative growth for FY '76 as foreign borrowing and the volume of production decline. To help combat inflation (which rose 15.8 percent in 1975), the government cut back prior cost-of-living wage and salary increases, thus having them come well within the CPI increase for that period. Changes in the cost-of-living wage adjustment regulations will benefit mainly workers with total weekly incomes under NZ$100.

Measures have also been taken to shift a larger share of national income away from consumption and into investment and the agricultural sector. The restoring of business and farm profits should stimulate investment and provide additional opportunities for exports of U.S. capital equipment. Additionally, the regional Assistance Program has been created to encourage development in areas having below average growth in recent years.

The total value of New Zealand imports reached US$2.8 billion (c.i.f.) for the year ended September 1975. Imports from the United States, New Zealand's third principal supplier, represented 13.9 percent of New Zealand's total imports (U.K., 19.8 percent; Australia, 19.6; Japan, 12.9). U.S. exports to New Zealand should benefit from the complete phasing out of British preferences by July 1977.

Products offering good potential for U.S. exports include: food processing and packaging equipment, electric power generating and measuring equipment, coal mining machinery, petroleum and gas exploration and development equipment, natural gas processing, distribution and utilization equipment, heavy transport (for example, logging) equipment. A continuing potential exists for tobacco, synthetic rubber, chemicals (including industrial, fertilizers, insecticides, and fungicides), pharmaceutical compounds, metals, and cotton and synthetic fibers and fabrics. The U.S. Trade Center in Sydney serves the New Zealand market.



PAKISTAN

Inflation Rate Moderates, Business Confidence Improves

Trade between the United States and Pakistan remains, in mid-1976, a lopsided affair, with U.S. sales to Pakistan far exceeding purchases.

GNP growth, estimated at 4 to 5 percent, barely keeps ahead of the population growth, according to Andre Williams of the Bureau of International Commerce.

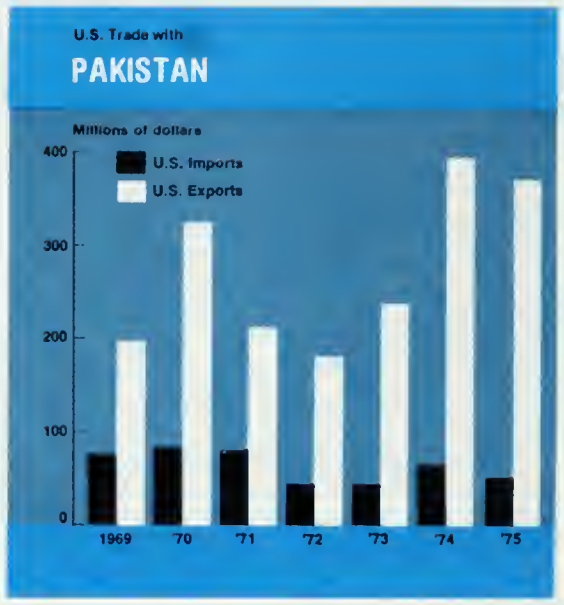
Pakistan has taken steps to normalize relationships with its neighbors, and this has contributed to an increased level of confidence in the business community. Inflation, which had reached a 30 percent rate in 1974, has now moderated to 8 percent.

The most serious problem affecting the economy remains the large gap in the balance of payments, not just with the U.S. alone, but worldwide. The trade deficit in 1975 rose to $1.2 billion, and little improvement seems to be in sight for the current year. This directly affects the prospects of U.S. suppliers as it dries up sources of financing, with 30 percent of export earnings earmarked just to service the external debt.

Pakistan is also the recipient of considerable aid, however—enough to finance half of its imports. Such assistance comes from OPEC countries, as well as from such traditional lending institutions as the World Bank and the Asian Development Bank; and a consortium for aid to Pakistan also contributes. Some aid, approximately 25 percent, is tied to European or Japanese manufacturers, but the remaining three-quarters provides American manufacturers with opportunities for sale of equipment for various major projects Pakistan is emphasizing in development of its infrastructure. This is particularly true of heavy construction and electrification equipment, engineering services, port facilities and projects intended to enhance the country's export potential. Specifically, major projects include: development of the Sui gas fields, development of Port Qasim electrification in connection with the Tarbela Dam, expansion of telecommunications services, improvements at Karachi airport and new terminal building at Lahore airport, new diesel locomotives and rolling stock for Pakistan railways, various irrigation projects, various television broadcast facilities, expansion of Karachi shipyards, and a number of projects related to public and rural health improvement, and expansion of health education facilities. Agricultural commodities traditionally have been a major American export to Pakistan.

U.S. products are well regarded in Pakistan and are frequently favored over other foreign materiel, especially in the area of heavy-duty machinery.

The Bhutto Government has repeatedly stated that foreign investment is welcome in the country but, in practice, each case has been scrutinized carefully and approval has been slow in being granted, with the result that foreign investment has barely kept pace with depreciation and capital repatriation. Private investment remains low; much of it is in small-scale plants for which statistics are inadequate.



PHILIPPINES

GNP Improves, But U.S. Trade Position Declines

The United States is losing ground to others, notably Japan, in its trading position with the Philippines, according to Andre Williams of the Bureau of International Commerce. An unfavorable trade balance in 1975 left the country with a $520 million payments deficit, and indications are that this will repeat itself in 1976—a situation that adds up to a gloomy outlook for the external sector. Not yet fully evaluated are the effects of a severe typhoon in late spring 1976 which will add to the economic woes of the country.

The 1975 performance, however, exceeded expectations in that the GNP grew at a rate of 5.9 percent, and agriculture, the dominant sector, saw production increases in almost all areas except forestry, which fared badly. Agricultural output accounts for nearly a third of national income and involves more than half the population. Government policy is to encourage export industries through accelerated growth and development of the industrial sector.

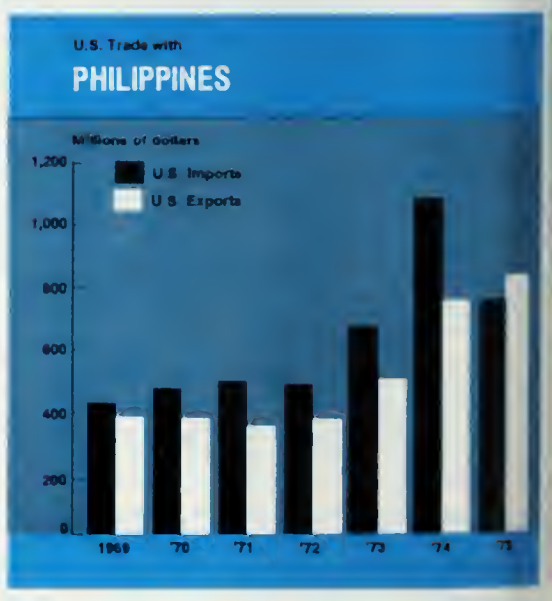
As these exports are primarily to Japan and to the United States, which together account for 65 percent of Philippine sales abroad, recession conditions in both countries brought about a dramatic drop in earnings, 15.8 percent less in 1975 than in 1974, at the same time that imports climbed 10 percent.

In addition, there are areas of disagreement, currently being examined between the Philippines and the United States. Under the Generalized System of Preferences, which lists the Philippines as a beneficiary country, coconut oil and mahogany veneer might receive duty free treatment in the United States, but these two important sources of export sales fail to qualify on a technicality.

In spite of these negative factors, and because of the program of infrastructure development, several large projects requiring considerable amounts of capital, engineering expertise, and sophisticated equipment and machinery will be undertaken in the next few years. They have the backing of the World Bank and of the Asian Development Bank. They include transportation (roads, railway, shipping), ports and harbors, dams and irrigation, but the most ambitious by far is the $1.2 billion nuclear power project undertaken by Westinghouse and backed by Eximbank.

Thus, in capital goods at least, opportunities await U.S. manufacturers, who have supplied the Philippines in the past with machinery, transport equipment, cereals and cereal preparations, textile fibers, chemicals and base metals. Additionally, the Philippines is attractive to American firms interested in locating in East Asia because of the familiarity of the business community with U.S. methods, the widespread use of English, skilled manpower at reasonable rates, and a favorable investment climate.

Manila will be the locale for several promotional events in 1976-77. Planned are a timber industries equipment exhibition in early 1977, and trade missions promoting machine tools and building supplies and equipment in November and in January 1977, respectively.



SINGAPORE

Economy Expands, Outlook Encouraging For U.S. Exports

The U.S. was Singapore's largest trading partner in 1975 with exports to the Republic of nearly $1 billion. The 1976 outlook is excellent and prospects remain encouraging for the sale of U.S. equipment and services, according to J. Lee Barnes of the Bureau of International Commerce.

The U.S. supplied about 16 percent of the country's imports in 1975. Major factors accounting for the U.S. market position include Singapore's continued economic growth and strong balance of payments position, the price competitiveness enjoyed by U.S. suppliers and the country's demand for capital goods.

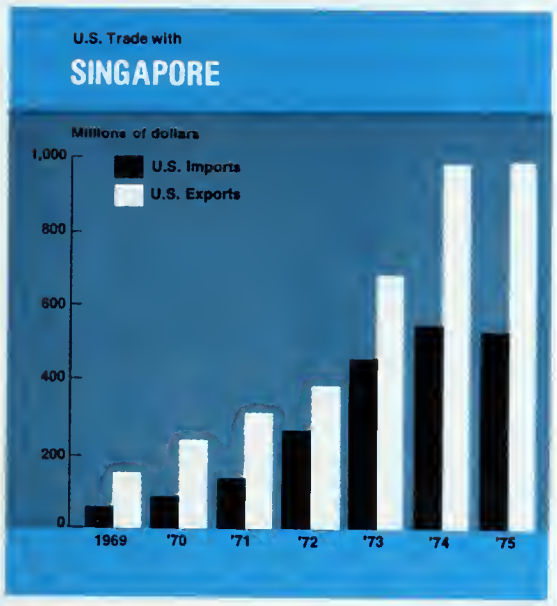
Real GNP growth for 1975 is estimated at 4 percent, with the outlook for 1976 even better as the world economy improves. Singapore's balance of payments showed a $135 million surplus for the first half of 1975 and total foreign exchange reserves reached $3 billion.

Singapore weathered the recession rather well and output is picking up, reflecting renewed foreign demand. The shipbuilding and oil refining industries, however, are in a slump with few new orders for oil rigs and service vessels and shrinking markets for refinery products. In an effort to offset these negative factors and add stimulus to the economy the government budget was increased some 18 percent over the spending levels of last year with special emphasis on housing, commercial and industrial development and additional infrastructure projects such as the new international airport at Changi.

Singapore's Economic Development Board emphasizes capital intensive industrialization. As a result, the market for U.S. capital goods is expanding rapidly. Best prospects for U.S. goods exist in building and construction supplies and equipment; metalworking machinery; pollution control and communications equipment; energy systems; process control and laboratory instrumentation, and packaging and materials handling equipment. It should be remembered that the market is competitive and very conscious of price, delivery time and after sale service.

The U.S. Regional Trade Center in Singapore promotes the sale of U.S. goods and services through a variety of techniques including product displays, exhibitions featuring energy systems, process control instrumentation, equipment for the graphic arts and communications industries and electronic industries production and test equipment are planned. Between regularly scheduled promotions U.S. firms are invited to utilize the new, enlarged Trade Center facilities, to exhibit products and hold sales meetings.

Many U.S. companies have located in Singapore to take advantage of the excellent business climate. At least 26 U.S. banks with branches or representatives are operating in the Republic at present. The government's fiscal and monetary policies have been encouraging the establishment of banks and Singapore's development as a regional financial center.



THAILAND

Economic Recovery Seen; U.S. Sales Prospects Favorable

Buffeted by a worldwide recession and a discontinued American military presence, U.S. exports to Thailand fell last year to $357 million, Robert McLaughlin of the Bureau of International Commerce reports. The outlook for 1976, however, indicates a number of expanding markets of interest to U.S. suppliers.

Although Thailand did encounter economic problems last year, signs of recovery have already appeared. During the first quarter of this year, increases were registered in both the volume (30.5 percent) and price (11.8 percent) of agricultural exports, down sharply in 1975. More than 30 investment projects totaling $43.5 million were started the first quarter against only 25 projects valued at $8.2 million for all of 1975.

While recession characterized the economies of most countries in 1975, the growth rate of the Thai economy was 6.4 percent in real terms, hardly a figure associated with recession. By other measures of economic health, however, performance was not so bright. The trade deficit widened, the balance of payments registered its first deficit since 1971 ($140 million), and foreign exchange earnings declined to $1.3 billion.

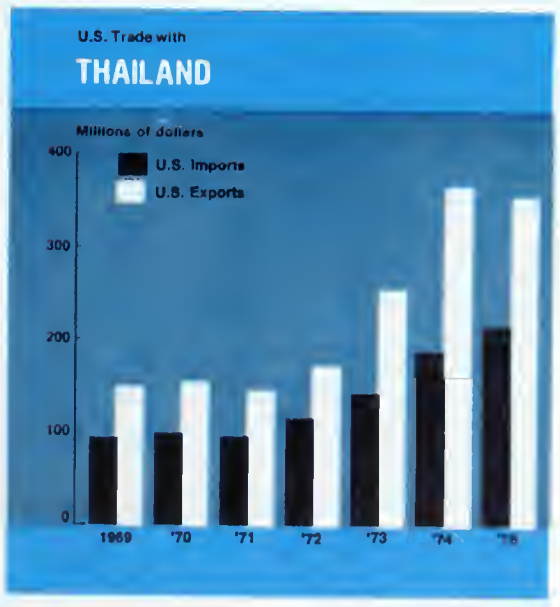
Though the total volume of Thai trade was down only slightly in 1975, the country paid more for what it bought and received less for what it sold.

With the exception of sugar, all of Thailand's major exports (rice, tin and rubber) showed earnings declines. Forecasts call for a continuation in the adverse trend in the terms of trade and another payments deficit is likely in 1976.

Despite the aforementioned weaknesses, prospects for recovery are favorable. General demand from industrial nations has begun to rise as the American and Japanese economies improve. Foreign investment and imports will aid development of both rural and industrial areas. The Ministry of Industry plans to assist five big industries: integrated steel, fertilizers, petrochemicals, oil and mining. Further, the Thai Government is seeking loans from international organizations and private financial institutions to prevent foreign exchange constraints from impeding recovery.

Some of the best opportunities for U.S. companies in Thailand are in agribusiness. With the government's emphasis on raising rural incomes and developing the economy in the countryside, sales prospects look particularly attractive for exporters of agricultural and food-processing machinery and equipment.

The government is expected to allocate considerable sums for irrigation, power generation and transmission, rural electrification, transportation including road and bridge construction, airport expansion and port improvement, and expansion of telephone facilities. Continued development and extraction of the country's mineral resources will create increasing demand for mining equipment. There are expanding markets for a wide range of consumer goods, as well as for office and EDP equipment, scientific instruments, printing and graphic arts materials, and hospital and medical equipment.



SUB-SAHARA AFRICA: BURDENS END SURGE IN U.S. EXPORTS

High Import Costs Bring Trade Slowdown

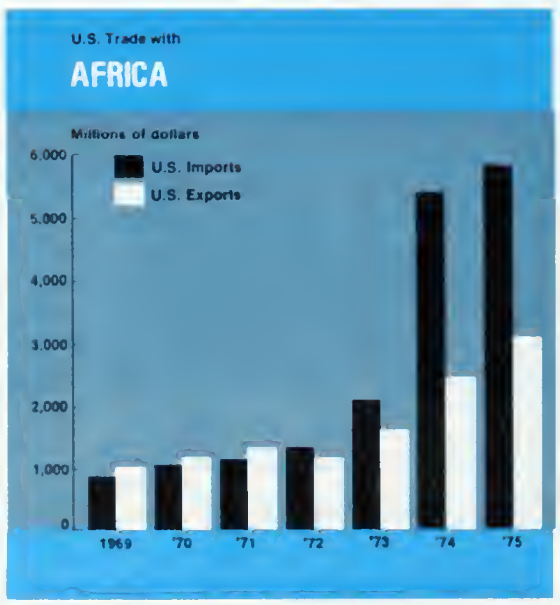
The refrain, it was a very good year, aptly describes the 1975 export scene in Sub-Sahara Africa. U.S. sales reached $3 billion, an increase of a hefty 26 percent, according to Sally K. Miller of the Bureau of International Commerce.

This year will not, however, see a continuance of that surge, and may witness no growth in exports at all. Through May U.S. exports were already down 1.4 percent. African economies in general are still attempting to cope with the combined burdens of quadrupled oil prices, heavy debt levels, sharply increased costs for capital goods, depressed commodity prices and high imported food costs.

The composition of U.S. exports continues to reflect preponderance of transportation and capital equipment. By far the strongest product lines are construction and mining equipment, aircraft, motor vehicles, railway locomotives and parts, and agricultural equipment.

Two developments in this year's trade should have favorable longer-term implications for a more successful penetration of the African market by U.S. firms. First, U.S. sales were dependent upon agricultural exports to only two of the top 20 markets: Sierra Leone and Somalia. Second, the United States is beginning to offer challenges in consumer goods. Textile fabrics, both cotton and synthetics, were among the first such consumer goods marketed by U.S. firms in Africa. These have been joined by wearing apparel, reading material, records and tapes, film, and even furniture and domestic appliances.

Significant trade opportunities exist for U.S. suppliers in several of the secondary markets. Thus far this year U.S. manufacturers have succeeded in increasing U.S. sales to Ghana and Ethiopia, contrary to most expectations. Ghana remains chronically short of foreign exchange and continues to require licenses for most imports as well as for foreign exchange remittances. Yet opportunities continue to exist, principally in the areas of agricultural equipment, and building and construction supplies and materials.

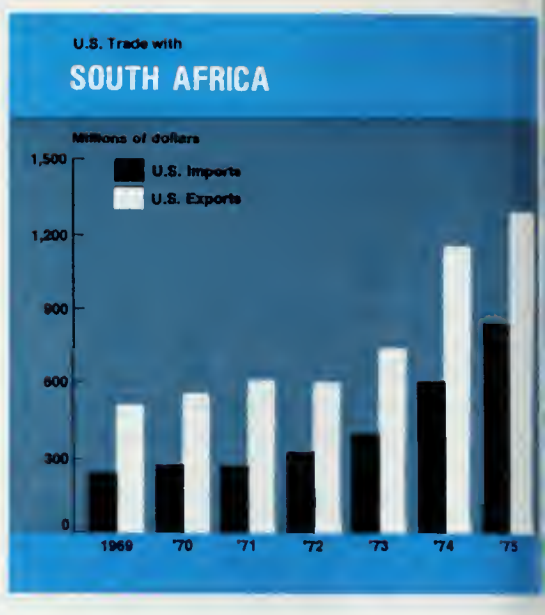


Ethiopia's finances have weathered the past 18 months of social, economic and political changes with remarkable stability. While foreign investment has nearly ceased, export earnings have risen as a result of the higher prices commanded by coffee. Although the focus for the bulk of purchasing has shifted onto the government, opportunities are good for agricultural equipment and supplies—especially fertilizers and seeds, telecommunications equipment and mining equipment.

The increasing prices commanded by natural rubber and forestry products should enable Liberia to weather without undue stress the lower iron ore prices forecast for the remainder of 1976. U.S. exports have fallen off during the first third of this year and the projection is for a less than $100-million year, but the United States should easily retain its dominant share of the $350-million Liberian market. The country's four-year development plan that just went into effect offers significant opportunities for sales of U.S. construction, mining, agricultural and forestry equipment.

U.S. exports to Zambia have fallen upon hard times. The country registered no growth last year and there are no prospects for improvement this year. The sharp decline (55 percent) in U.S. exports to Zambia mirrors the country's economic malaise. Total U.S. shipments for this year should not exceed $35 million. The bear copper market was closely followed by massive transport route disruptions during the Angolan conflict, which have not yet been repaired. The budding world economic recovery should spur an upturn in copper prices by the end of the year. With the increased revenues these higher prices will earn, sales opportunities may improve in the priority areas of agriculture, mining and transportation.

Senegal is mid-way through its third year of good peanut harvests, and high peanut prices. United States exports were up 40 percent through May and should reach $30 million for the year. That figure still represents only 7 percent of the total Senegalese import market.



SOUTH AFRICA

U.S. Records Modest Gains In Bridled Import Market

Most U.S. exports to South Africa for the remainder of 1976 are expected to show only minor increases in volume, although the aircraft category may get a boost as South African Airways takes delivery of its 747s throughout the year, reports Sally K. Miller of the Bureau of International Commerce.

U.S. exports should exceed $1.3 billion, but the growth over the 1975 level should not be more than 3 to 5 percent. That figure should be substantial enough for the United States to gain nearly an 18 percent share of the market.

Strong performers on the U.S. side include capital and transportation equipment, but select consumer items also perform quite well. Nearly a quarter of all U.S. exports are in the transportation sector—air, road and rail. Construction and mining, mechanical handling and machine and power tools account for another 10 percent. Various telecommunications and industrial process control exports have also had a very good year, spurred on to some extent by South Africa's entry into the video age in January. Such well known U.S. exports as heating and cooling equipment, and the full range of office machines fared well. Textiles, both synthetic and cotton, rice and film lead the consumer list.

Last year's trade deficit of $4.2 billion was not entirely balanced by gold sales that amounted to $3.5 billion. The current account deficit of $2.2 billion was, however, more than offset by an inflow of foreign capital of $2.4 billion. Increased restraint will be evidenced in approving permits for those goods not on South Africa's free import list. Consumer goods may bear the brunt of the stricter policy. South Africa released on June 8 the second of its 1976 import allocation per-

its. Together with the earlier allocation of 40 percent, June's 30 percent ings the yearly total up to 70 percent the 1975 level. Goods covered by these locations include consumer goods, clothg, foods and alcoholic beverages. The suance of a third allocation for 1976 ill no doubt also be delayed and could sult in the 1976 total being less than 75's.

The government in March undertook series of monetary and fiscal measures med at correcting the balance of payents and inflation problems that have rsued the economy since the latter half 1974. The South African economy exrienced a marked slowing during 1975; al growth averaged 2.25 percent.

South Africa will be following very osely the growing upswing in Western onomies. Traditionally, its export earngs from minerals, gems and agriculral commodities have risen in direct sponse. The problem lies in the length time that elapses before those prices fect the demand-pull impact.

Most observers do not expect marked provement until the last quarter of 76 or the first one of 1977. Consequently outlook for 1976 is for little if any provement in gross domestic product. ould the terms of trade not improve til very late in the year to spur on the ntry's exports, there is a possibility it GDP may register on the negative e.

Unlike 1975, the government will not a major source of expanding projects l public sector investments. The budget only 10 percent higher than last year. A number of projects bear watching by S. suppliers. Expansions will continue at refineries in Durban and Cape Town. nstruction on at least three main projs will be getting under way in 1976: SOL II coal to oil plant, the Koeberg clear Generating Station, and the kensberg Hydro Scheme. A U.S. firm the project contractor for SASOL II; S. suppliers should be able to supply a stantial portion of equipment and plies. The Koeberg project was rded in May to a French consortium pite active General Electric conten-. The overall contractor has not yet n awarded for the Drakensberg proj although U.S. firms are actively parpating in bidding. A decision has been le to expand the newly commissioned bor at Richards Bay into a major gen cargo port by 1978. In addition, a ber of mining ventures offer strong s opportunities. The Richards Bay erals Co. is in the initial stages of eloping its $300-million titanium dets on the north Natal Coast. The ernment's decision to foster an exsive coal export policy should result need for substantial amounts of coal ing machinery as new mines open.

NIGERIA

Oil Revenue Makes Market A Prime Target For U.S.

U.S. exports to Nigeria are expected to reach $670 million in 1976, up 25 percent over 1975, continuing a three-year upward trend, according to Reginald F. Biddle of the Bureau of International Commerce.

Oil continues to feed Nigeria's boom, and makes it a prime target for U.S. exports. The United States is currently the number three supplier to the Nigerian market behind the United Kingdom and West Germany. Nigeria is expected to be spending $11 billion per year on imports by 1979-80. GDP was over $23 billion in 1975, and import requirements topped $5.9 billion. Oil, with over 45 percent of Nigeria's GDP, is the biggest sector, followed by agriculture, with 23 percent. The real growth rate has been around 9 percent annually for the last six years.

The Federal Military Government (FMG) has announced a reordering of priorities under the Third National Development Plan 1975-80, including a downgrading of prestige projects and a placing of more emphasis on housing, health and agriculture. The FMG's housing program will be increased from 60,000 to 200,000 units by 1980. Federal outlays in the health sector will increase from $500 million to $2.7 billion for the same period. The FMG has launched "Operation Feed the Nation" to increase food production. In addition to the existing duty-free importation of agricultural machinery for soil preparation, import duty has also been abolished for all types of machinery imported for food production.

To improve the progress of transportation development and the building industry, import duties have been reduced on trucks and lorries, and semi-finished iron rods and glass.

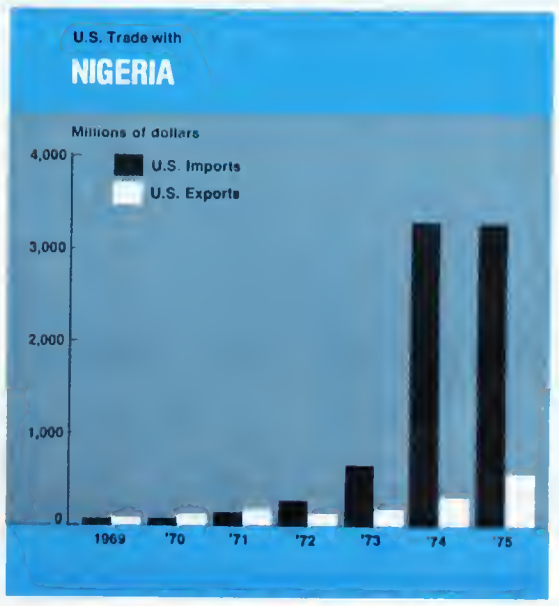
As a result of new foreign exchange controls issued by the Central Bank, banks in Nigeria stopped writing letters of credit, temporarily, due to confusion caused by the government's ruling that all letters of credit must be prepaid in full by the importer in naira to a bank in Nigeria. Confusion was compounded by the vague specification of the exact shipping documents required for letters of credit and the nonavailability of the new mandatory port cargo clearance certificate. The Central Bank has since made clear that banks need not demand advance deposits against letters of credit above usual levels for their customers and has specified the shipping documents required for release of foreign exchange.

There is uncertainty among the U.S. business community as to the direction toward which the new Nigerian indigenization laws will eventually lead. The Nigerian Head of State announced on June 29 a second phase of indigenization, involving three schedules, under the Nigerian Enterprises Promotion Decree. Schedule I requires 100 percent Nigerian participation; schedule II requires 60 percent; and schedule III, which will be made up of all enterprises not listed specifically in schedules I or II, requires 40 percent Nigerian participation.

A number of other events in Nigeria have caused concern among the U.S. business community. An unsuccessful coup attempt occurred in February. On April 1, Nigeria issued an import prohibition on 56 categories of goods, in a move designed to reduce inflation and help ease the port congestion problem. The congestion of Nigerian ports has lessened but is still a problem. An embargo on air shipments consigned to banks for delivery to third parties has been instituted. Nigeria had announced that all imported goods are to be in the metric system. Invoices on consumer goods are to be in the metric system as of April 1, and on transport and heavy equipment as of Dec. 1. Markings on prepacked goods are to be exclusively metric.

Implementation of the projects of the Third Plan depends on considerable importation of materials and equipment. Best prospects for U.S. export sales to Nigeria will continue to be machinery and transport equipment; building and construction supplies and equipment; materials for health care; energy systems generation and transmission; oil field, gas gathering and processing machinery, services and equipment; materials handling machinery and equipment; graphic arts equipment; and motor vehicle maintenance tools and facilities.

In remaining months of 1976, Commerce will sponsor technical sales seminars on modern telecommunications systems and integrated agribusiness, and catalog shows on consumer goods and printing and graphic arts.



GABON

Dynamic Market Offers Variety Of Opportunities

Fueled by the country's expanding petroleum-based economy and ambitious development program, U.S. exports to Gabon should increase substantially during 1976, according to Philip Michelini of the Bureau of International Commerce. The soon-to-be released $2.5 billion Third Five-Year Development Plan (1976-80) will detail trade opportunities which easily could push U.S. sales of goods and services to over $100 million by 1978.

Gabon has become in recent years one of Africa's biggest success stories. Future oil production will remain the key to continued economic advancement, and the current best estimates are that production will remain at or near the 1975 level of 11.6 million metric tons for at least the next 15 years. In addition, in 1976 market prospects have become increasingly bright for the country's important manganese, uranium and timber sectors. Currently Gabon is the world's biggest exporter of manganese, and by 1983 marketing is likely to start for its one billion tons of iron ore reserves.

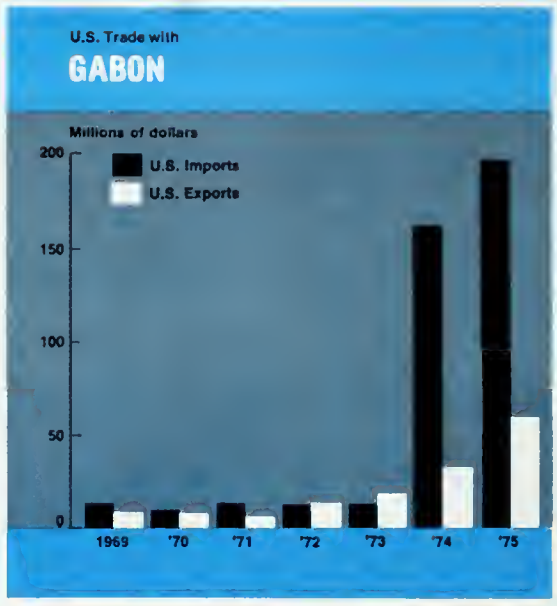
The U.S. competitive position has become stronger during 1976 as the business-oriented government of President Omar Bongo has sought to diversify sources of supply and investment and end the long-standing trade preferences granted to France and other members of the European Economic Community. Goods from all developed countries, including the United States, now pay the same import duties.

A continued increase in U.S. exports is constrained largely by the size of the market, approximately 600,000, and the relatively limited absorptive capacity of the country. Successful companies report the best way to secure contracts is through personal contact with government ministries and agencies, and, in most cases, association with an aggressive local agent.

As part of its development effort, Gabon is proceeding with several infrastructure projects. U.S. construction, equipment or services sales opportunities include the $100-million Santa Clara minerals port project, expansion of the harbor and airport facilities at Port-Gentil, the $500 million Grand Poubara and Tchimbele hydropower projects, construction of 530 miles of roads and bridges during the next three years, and numerous housing, hotel, industrial plant and office building facilities. Some $350 million is expected to be spent on implementing various agribusiness projects during 1976-80. Other areas of Third Plan emphasis are likely to be public health and communications, as well as promotion of diversification of the largely private-controlled $200-million industrial manufacturing sector.

Best sales prospects include mining, construction and building equipment and supplies, transport vehicles, especially trucks, locomotives and aircraft, timber and woodworking equipment, agricultural equipment and services, power generating systems, and materials handling machinery.

In November Commerce will sponsor an integrated agribusiness technical sales seminar in Libreville.



IVORY COAST

Sound Management Allows Rapid Economic Recovery

Despite unfavorable external conditions, the Ivorian economy displayed fundamental resilience in the 1973-75 period, reflecting the success of past efforts to diversify the economy and generally sound economic management. Although the balance of payments will continue in deficit in 1976, there is expected to be a rebound in the Ivorian economy stemming from a rising volume and price for coffee, cocoa and timber exports. U.S. sales should reach $85 million, up 8 percent from the 1975 level of $78.3 million, according to Philip Michelini of the Bureau of International Commerce.

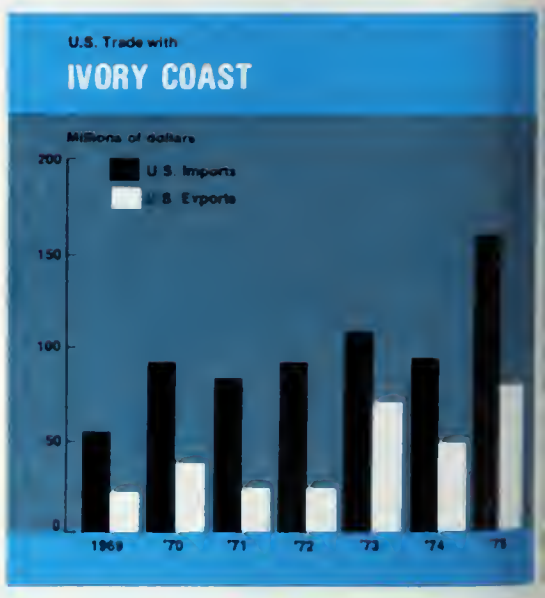
The American Embassy in Abidjan reports that U.S. products have become more competitive, not only because of a lower level of inflation in the United States, but also because the Ivory Coast in July 1975 abolished reverse preferences (duty-free entry of goods from the European Economic Community), thus enabling U.S. goods to compete on an equal footing. The principal obstacles to increased U.S. sales are now the lack of independent agents and distributors (most of which are owned by or tied to traditional European suppliers, many of whom require head office authorization to take on new lines), the necessity of doing business in French, and the need to overcome traditional trading patterns.

U.S. traders can combat these problems by opening up direct channels of distribution (providing financing where necessary to permit independent distributors to operate competitively), and by making their products known to end-users by advertising technology and price. Servicing and spare parts availability are also major marketing points. Over 200 U.S. companies now sell their products in the Ivory Coast.

Several major upcoming development projects offer sales opportunities for U.S. suppliers of equipment and machinery: the design, construction and equipping of two hydropower facilities at Buyo and Soubre, a series of sugar projects at Ferkessadougou, the $1-billion exploitation of the Mt. Klahoyo iron ore deposit, a $300-million railroad or $80-million pipeline to the iron mine, and expansion of the ports of Abidjan and San Pedro. A number of investment opportunities exist in the agribusiness, wood processing, tourism and consumer goods sectors.

The as yet unpublished Five-Year Development Plan (1976-80) will provide details and pinpoint additional sales and investment opportunities. The capitalist-oriented Ivorian Government of President Felix Houphouet-Boigny is trying to diversify its sources of foreign investment and is eager to attract American capital. Several U.S. companies in recent years have taken advantage of Ivory Coast's solid political stability and liberal 1959 Investment Code; in 1975 U.S. direct investment increased 87 percent to $56 million. A growing number, drawn by the capital's attractive location and modern facilities, are establishing regional headquarters in Abidjan.

Commerce plans to send a trade mission on food processing and packaging equipment to Abidjan in November.



KENYA

conomic Slump Brings ecline In U.S. Sales

.S. exports to Kenya are expected to ecline 15 percent to $41 million in 1976 s a result of the country's economic owdown, according to Mary L. Manley the Bureau of International Commerce.

Sharp rises in some import prices, parcularly of petroleum, and a poor agriltural season were major causes of the onomy's weak performance. In 1975, .S. exports declined slightly from $48.2 $48 million. Sizable quantities of kraft per, aircraft and parts, tractor chassis, lecommunications equipment, agriculral chemicals, and mineral crushing achinery were principal U.S. exports.

Kenya's 1975 import total of $972.4 illion was $43.5 million less than that 1974. With a 2 percent increase in tal export earnings (to $592 million) corded in 1975, a $27 million drop in e current account deficit of the balance payments was achieved.

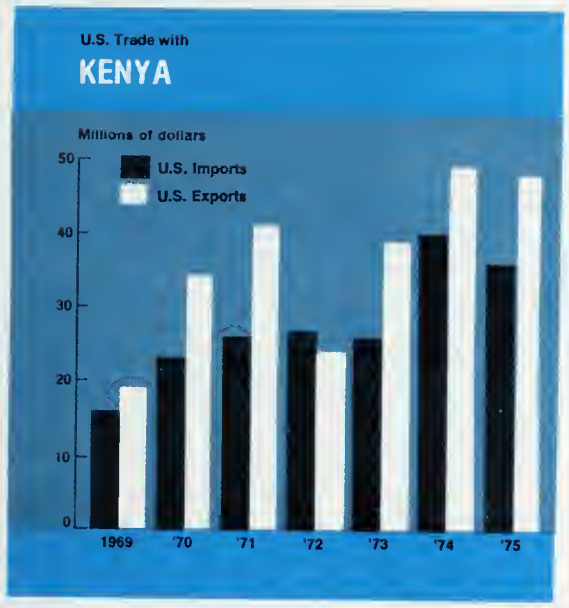
Through 1977 Kenya will remain dendent on balance of payments support, resumption of import growth cannot matched immediately by export earngs. The 14 percent devaluation in Octor was an important step toward rering balance of payments equilibrium the medium-term.

GDP at 1972 prices increased by 1 pernt to $2,065 million and per capita inme dropped 6 percent to $153 as of cember. The slowdown in manufacring (down to 6 percent, from 8 pernt in 1974) was linked to slumps in mestic and foreign demand. Real earngs in the important tourism sector have n maintained. Inflation is at a high el (20 percent) in the wake of devaltion of the Kenyan shilling.

In 1975, imports of machinery and other ital goods, the major area for U.S. orts, increased by 45.7 percent, while ir share of total imports rose to 16.6 cent. In this category the most subntial increases were in food processing chinery, mining and mineral crushing ipment, and cargo handling equipment. e volume of food imports, such as eat and sugar for further processing, o increased.

The outlook for the Kenyan economy for a higher GDP growth rate, some overy in wage employment, a smaller ance of payments deficit, and some ft in distribution of income in favor rural areas. Earnings from coffee, a jor export, should double, and income m tourism seems likely to increase by 20 percent. Greater development emsis on the rural sector should increase nand for grain handling equipment, sugar cane handling and processing equipment, and food processing and packaging machinery. Traditional U.S. exports of light industrial machinery and equipment, agricultural chemicals and transportation equipment are likely to continue selling well.

Kenya's central location and modern capital of Nairobi have encouraged many U.S. firms doing business in eastern Africa to establish regional headquarters there. In 1975 U.S. business committed $25 million in new investments, notably in joint ventures for a fertilizer complex and a motor vehicle assembly plant. In November a Commerce-organized food processing and packaging machinery and equipment trade mission will visit Kenya.



SUDAN

U.S. Exports Continue Four-Year Rising Trend

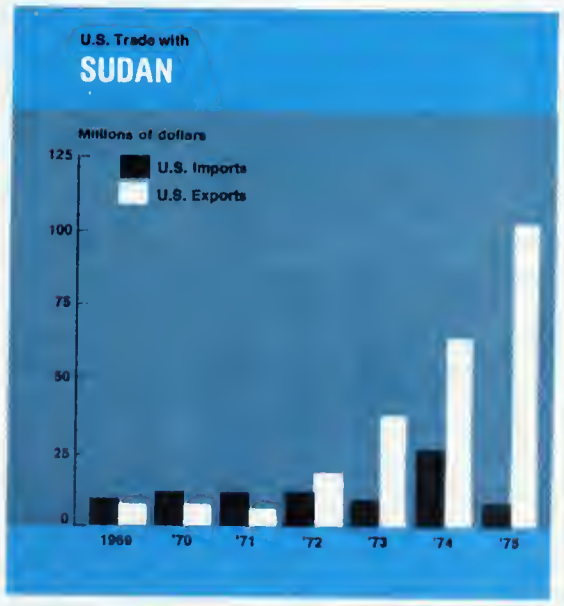
U.S. exports to the Sudan are expected to reach $133 million in 1976, up 29 percent over 1974, continuing a four-year rising trend. The U.S. share of the market grew to 12 percent in 1975, owing to high-value sales of wheat and transportation equipment and expanded exports of agro-industrial goods, according to Mary L. Manley of the Bureau of International Commerce.

The rapid growth rate of Sudanese imports sustained since 1973 seems likely to decelerate, as international payments will absorb a larger portion of the country's foreign exchange after 1977. On the positive side, the Sudan Government is striving to maximize short-term gains in order to maintain moderate growth. GDP ($2.7 billion in 1975) grew at a 4-5 percent rate during 1974 and 1975. Inflationary pressures intensified as the value of food and petroleum imports jumped from $106 million to $265 million in 1975. Higher costs of capital goods also caused the current deficit to rise from $22 million to $400 million in 1975. To expand export earnings and improve the balance of payments, self-sufficiency by 1980 in wheat and sugar, both major imports, is a development objective. Long-staple cotton acreage reduction in favor of peanuts and medium-staple cotton varieties that are in greater demand is under way.

In 1977 the multiplicity of services required for the developing Sudanese economy will continue to expand the market for aircraft, river boats and road and railway equipment. Sales opportunities will increase for food processing, packaging and textile machinery and equipment for edible oil milling, sugar handling and processing, and grain storage.

Civil aviation will play an important role in meeting domestic transportation needs. Current plans call for new airports at Port Sudan and Wau; a new terminal at Juba; and extensive improvements at Malakal. Communications, navigational and maintenance equipment is to be purchased for all four airports.

Development opportunities derive not only from the Sudan's vast agro-industrial potential and expanding markets but also from its ability to tap surplus funds of the Organization of Arab Petroleum Exporting Countries. The public sector's investment target in the coming decade exceeds $9 billion. In May 1976 the Arab Authority for Agricultural Investment and Development, an Arab League agency, announced it would implement a $2.2 billion six-year program for the Sudan. This infusion of Arab capital in the 1977-83 period is to be focused on 61 projects. While the recent extraordinary rate of U.S. export growth cannot be sustained, the market for U.S. products is becoming much broader based. U.S. firms will find opportunities for exports of large quantities of machinery and equipment for agriculture, construction, and agribusiness as well as of trucks and chemicals. As the mining sector is systematically explored, demand for equipment and technology should grow.



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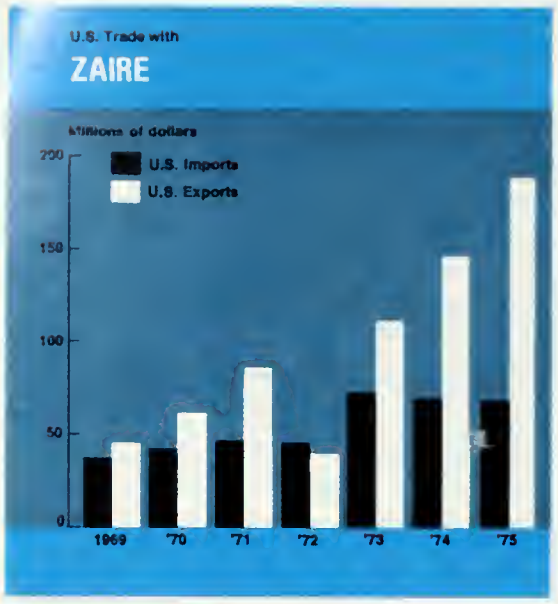

ZAIRE

Decline In Trade With U.S. Reflects Economic Malaise

U.S. exports to Zaire will decline significantly in 1976 from their record 1975 level of $187.5 million, according to Philip Michelini of the Bureau of International Commerce. Through May, American sales were down to $41.6 million, a decline of 52 percent from the level of $86.6 million a year ago.

The decline in U.S.-Zairian trade is a reflection of the general and deepening malaise which has affected the Zairian economy since the last quarter of 1974. Although the price for copper, which had fallen over 65 percent from the peak level of $1.34 a pound attained in late 1973, has shown limited signs of recovery in recent months, falling production, transport bottlenecks, a shortage of essential supplies and restricted revenue inflows are likely to prevent any economic upturn before 1977.

Eventual economic recovery will depend upon effective implementation of the austerity program which the Government of Zaire has been compelled to embark upon. Foremost element in the program has been a $163-million credit from the International Monetary Fund in February.

In addition, during June, 11 major creditor governments including the United States agreed to let Zaire postpone repayment of debts due in 1975 and 1976 for up to 10 years. Private debts, such as those owed American suppliers and commercial banks, are not dealt with in the current agreement and will be the subject of future negotiations. Zaire's total external debt is estimated at $3-3.5 billion.

The Government of President Mobutu Sese Seko has announced a program of stringent import and exchange controls. To help eliminate the country's massive trade imbalance, which in 1975 totaled $233 million, since May 12 all importers must deposit with the Central Bank of Zaire 80 percent of the cost of an imported item before an import license is granted or a letter of credit opened. Exceptions are a 50 percent deposit in the case of food and pharmaceutical products and no deposit for raw materials and industrial machinery spare parts.

U.S. suppliers seeking trading opportunities in Zaire will find the agricultural and transportation sectors providing the best short-term marketing opportunities, since the government has declared that those areas will have priority for whatever foreign exchange becomes available. The United States has extended $28 million in tied credits for the importation of agricultural goods, and further assistance during 1976 and 1977 is a strong possibility. Ongoing investment projects such as the Inga-Shaba power project, for which the U.S. Export-Import Bank in May approved $68 million in loans and guarantees, and the GECAMINES copper expansion project, which has its financing already secured, will offer some remaining opportunities for U.S. exporters.

U.S. Share Of Imports Into Selected Countries

Area and country	1974 Imports			1975 Imports January through latest month			
	From world	From U.S.	U.S. share	Latest month	From world	From U.S.	U.S. share
	(million dollars)		%		(million dollars)		%
WESTERN HEMISPHERE							
Barbados	204	39	19.3	Sept.	159	31	19.4
Bermuda	155	69	44.4	(1)	(1)	(1)	(1)
Guadeloupe	230	11	4.9	Sept.	224	9	4.1
Guyana	254	65	25.7	Sept.	232	68	29.4
Martinique	293	14	4.6	Sept.	259	11	4.3
Paraguay	198	18	9.1	Dec.	213	25	11.7
Uruguay	460	36	7.8	Dec.	516	54	10.4
WESTERN EUROPE							
Cyprus	408	26	6.3	Dec.	309	10	3.3
Iceland	535	42	7.9	Dec.	489	45	9.3
Ireland	3,814	247	6.5	Dec.	3,766	271	7.2
Malta	361	21	5.9	Dec.	378	30	8.0
NEAR EAST							
Bahrain	1,132	80	7.1	Dec.	1,189	92	7.7
Jordan	482	55	11.3	Dec.	671	57	8.5
Oman	396	31	7.8	Dec.	676	65	9.6
Syria	1,224	36	2.9	Sept.	1,182	88	7.4
FAR EAST-SOUTH ASIA							
Bangladesh	1,096	221	20.2	Dec.	1,269	(1)	(1)
Fiji	273	12	4.3	June	124	6	5.1
Laos	65	5	7.0	(1)	(1)	(1)	(1)
New Caledonia	283	11	3.7	Mar.	85	3	3.7
Sabah	485	[2]53	[2]11.0	Sept.	1,828	139	7.6
Sri Lanka	685	22	3.2	Dec.	745	48	6.4
Viet-Nam, Rep. of	907	492	54.2	(1)	(1)	(1)	(1)
West Malaysia	3,486	328	9.4	Dec.	3,119	334	10.7
SUB-SAHARA AFRICA							
Cameroon	436	27	6.2	Sept.	443	30	6.8
Chad	87	8	9.7	(1)	(1)	(1)	(1)
Ethiopia	276	16	5.6	Dec.	311	23	7.3
Ghana	818	87	10.8	Dec.	805	(1)	(1)
Liberia	288	82	28.4	Dec.	331	104	31.5
Madagascar, Dem. Rep.	281	20	7.0	(1)	(1)	(1)	(1)
Malawi	188	6	3.1	Dec.	250	9	3.5
Mali	123	6	5.0	June	114	(1)	(1)
Mauritius	309	16	5.0	Sept.	255	12	4.9
Mozambique	462	27	5.9	July	250	12	4.7
Niger	96	12	12.8	June	38	(1)	(1)
Reunion	352	4	1.0	June	404	4	1.0
Rwanda	58	3	4.9	June	46	4	7.9
Senegal	457	28	6.1	June	290	19	6.5
Sierra Leone	224	20	9.0	Sept.	137	10	7.5
Tanzania	814	55	6.8	Dec.	899	96	10.6
Togo	119	5	4.3	May	62	2	4.0
Uganda	218	6	2.8	Dec.	193	4	2.1

Note The selected countries are those whose total imports were valued at $50 million or more in 1974 and are not covered in the country articles in this issue. Additional countries are omitted for lack of data In order to present comparable statistics for all countries, import data have been adjusted from an f o b to a c i.f valuation for Paraguayan imports from the United States

[1]Not available. [2]Estimated from partial year data

Sources Official trade statistics of listed countries
International Monetary Fund, *International Financial Statistics.*

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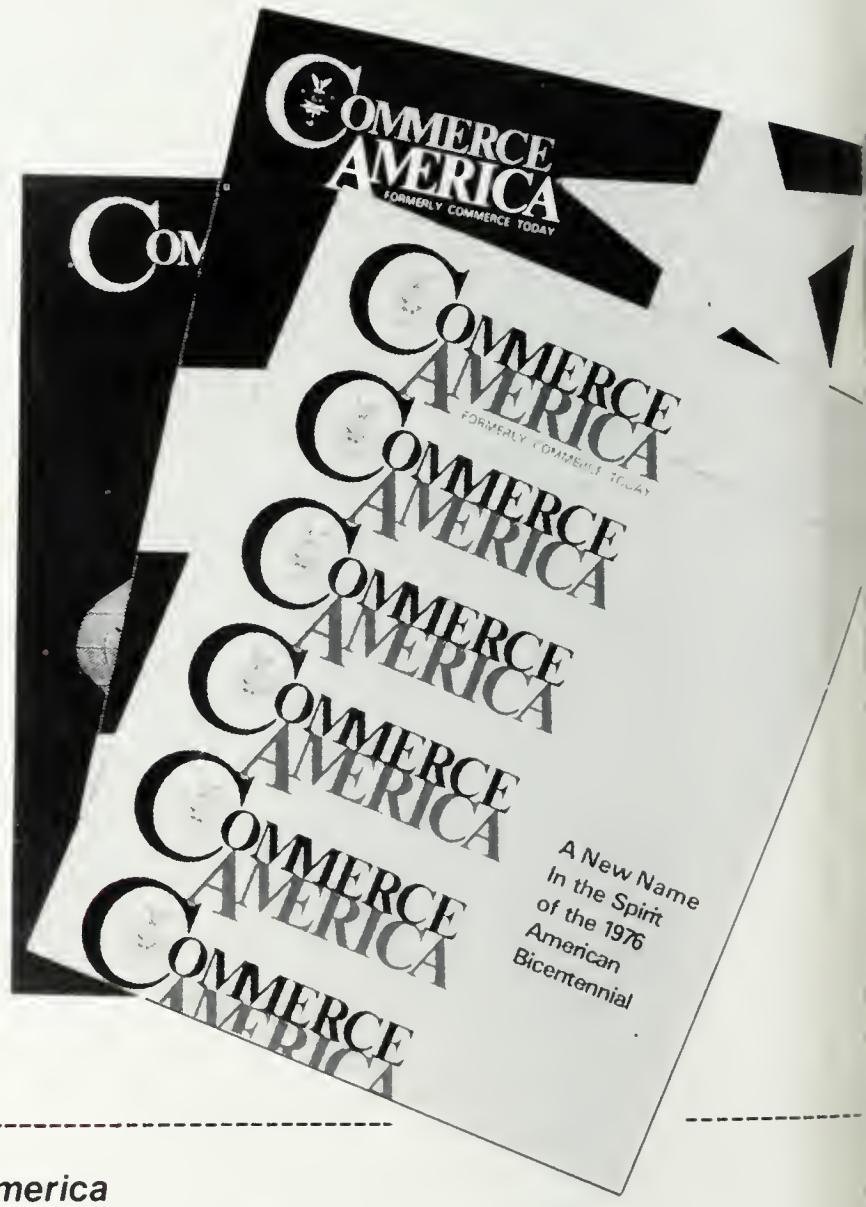

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The Research Associate: Catalyst For INDUSTRY/ GOVERNMENT COOPERATION

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Newsmemo

How to curb or counteract rising health care costs? Public comments on this much-discussed problem are being sought by the Council on Wage and Price Stability, which will hold a series of hearings about it. The Council has expressed concern about the potential impact of the problem upon individual households, labor, industry and government, especially since many experts predict inflation in this sector will continue to be worrisome.

American men of retirement age are now heavily outnumbered by women. At present there are 69 males for every 100 females in the 65-and-over age group; only 40 years ago the numbers were about equal. Among blacks the ratio is 73 to 100; for Spanish-origin people the margin is narrowed to 87 males per 100 females. The new Census Bureau study presenting these figures states that the relative importance of hereditary and environmental factors in this situation is unknown, but there is strong evidence back of a biological basis for the difference.

The pesticide industry is facing increasing regulatory problems. A recent study indicates that 40 percent of current research costs are going for "defensive" efforts to meet new regulations, and that this figure could go as high as 80 percent. This could force many smaller manufacturers out of business. Meanwhile patent protection on key pesticides is expiring—40 important pesticides are losing such protection soon, six in 1976—causing a competitive scramble in some hitherto lucrative markets. Despite these problems, the pesticide market is expected to grow from $1.9 billion in 1974 to $3.3 billion in 1984.

Noise control at U.S. workplaces can mean upwards of $10.5 billion in capital outlays. The estimate is by the Occupational Health and Safety Administration. Latest OSHA requirements would set the acceptable noise limits at 90 decibels, where they are now, but require monitoring and hearing tests when levels top 85 decibels. The $10.5 billion figure relates to the 90-decibel standard; monitoring and hearing tests could add $241 million by OSHA estimates. Noise controls have a particularly severe impact on the textile industry.

The dollar gain in ad revenue in 1976 will be the biggest ever recorded. The estimate of $32.4 billion by "Advertising Age" for this year's total figure compares with $28.3 billion for 1975. Political announcements, the Bicentennial, the Olympics, and the general economic improvement have contributed to this upturn. The rise is significant for most media. Newspaper linage has returned to pre-recession levels, and magazine and trade publication pages are ahead of previous highs set in 1973.

The broadcasting industry's revenues are up markedly this year. Income in the radio-TV field has risen steadily in a range of 8-10 percent annually over the past 30 years, despite intermittent recessions. Spurred by the factors noted above, with further plusses from increased rates, the radio-TV revenue picture for the first five months of 1976 shows a gain of 20 percent over the comparable 1975 period. An overall 1976 gain of 15-20 percent is now foreseen.

That was car No. 5,000,000 that rolled off a U.S. assembly line on July 21. It's a sign of the 1976 upturn in the domestic auto industry. In 1975 the five-millionth car was produced about three months later. Also, the June total of truck deliveries was the third highest on record, exceeded only by the totals for March and May of 1973. Meanwhile the import car competition lags, with import stocks reaching an all-time record of 605,990 units awaiting buyers on June 30.

Get ready for metric measurement in fibre boxes. The Fibre Box Association is proposing uniform metrication in this field. Although the proposal is not expected to be implemented immediately, it will eventually have broad impacts on industry. The proposal also has weight and strength provisions. It would achieve greater domestic product consistency, allow for superior use of linerboard, and provide a more logical series of grades for corrugated containerboard. Substantial economies within the fibre box industry can result, and the international position of U.S. fibre box products can be improved.

COMMERCE AMERICA

FORMERLY COMMERCE TODAY

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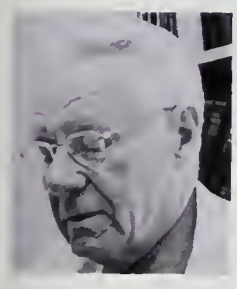

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Scientists and engineers in the private sector increase their understanding of government and vice versa through the Research Associate Program at Commerce's National Bureau of Standards.

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Practicing what it has been preaching, the Federal Government is setting an example for the rest of the country by initiating recycling programs within its own operations.

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COVER: Technical employees of private industry are currently involved in 21 different research projects making use of the elaborate facilities at Commerce's National Bureau of Standards. They are Research Associates and the story of what they're accomplishing begins on page 4.

U.S. DEPARTMENT OF COMMERCE

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Improving Market Factors May Boost Slow Pace Of Housing

Economic Highlights is prepared by John W. Kendrick, Chief Economist of the Department of Commerce with staff economist Thomas W. Kraseman.

John W. Kendrick

The recovery in housing has been moving at a relatively slow pace so far this year following the rapid rebound in 1975. From the first quarter of 1975, the recession low, to the fourth quarter, starts increased at an annual rate of a little more than 50 percent. The rise through June of this year has been at an annual rate of only 10 percent, bringing the level to an annual rate of 1,430,000 in the second quarter. If this rate of increase continued in the second half, starts for the year would be only 1,450,000 compared with forecasts that ranged as high as 1.7 million. There is evidence, however, that the rate of increase will accelerate in the second half, mostly in the multi-family sector, although not sufficiently to fulfill the more optimistic predictions for the year.

Starts of single-family homes have shown considerably greater strength than the apartment and condominium catagory. They declined much less in the recession and rebounded more strongly in the recovery (Charts 2 and 5). By the second quarter of this year, single-family starts were only 17 percent less than their peak annual total in 1972, while multi-family starts were down 68 percent.

The construction of apartment buildings for either the rental or sales markets depends basically on the prospect for profits. The data in panel 4 provide an indication of the trends in profitability in recent years. In the early 1970s, cost increases were fairly moderate and generally were in line with the rises in rents; vacancy rates (Chart 6) were relatively low. Construction money was readily available from banks and real estate investment trusts. Under these conditions, starts rose sharply. But in the severe inflation of 1973 and 1974, cost increases ran far ahead of increases in rents. Although starts were cut back drastically beginning in the first quarter of 1973, completions of projects continued very high for more than a year, resulting in a severe glut. Vacancy rates rose sharply, especially for condominiums.

Since about the middle of last year, however, there has been a marked improvement in the supply-demand relationship, as indicated in the charts. Cost increases are now much closer to the rises in rents, so that profitability has improved. Vacancy rates have come down, although for condominiums they are still relatively high, and the percentage of new apartments rented within three months has risen sharply. In addition, the rate of completions of new apartment projects has fallen markedly.

These favorable developments have already induced a moderate recovery in apartment starts, mostly in the second half of 1975. Following a setback in the first quarter of this year, the uptrend appears to have resumed. The improvement in the underlying situation suggests that this moderate rate of advance should continue or even accelerate in the second half.

The trend in single-family housing starts appears to depend fundamentally on how many prospective home buyers can afford the mortgage payments on the new houses offered on the market. Chart 1 shows mortgage payments, at the current rate of interest and the current price of new homes, as a percentage of average household income after taxes. Important changes in the trend of housing starts since 1970 have coincided rather closely with changes in this percentage of payments to income, as the charts show. This year's slackening of the rise in single-family starts appears to be related to an upturn in the percentage beginning late last year.

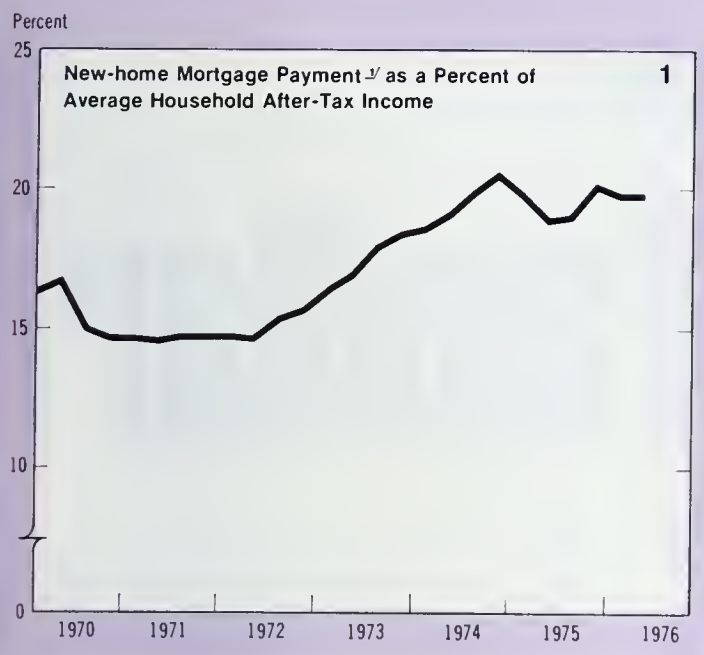
The size of the average monthly mortgage payment depends, of course, on both the going rate of mortgage interest and the average price of new homes. Over the years, these have tended to move together, since both are influenced by the basic rate of inflation. Since mid-1975, however, the increase in mortgage payments has stemmed far more from an increase of prices of homes than from changes in mortgage interest rates. Mortgage interest rates have fluctuated within a fairly narrow range, rising somewhat last fall and then receding to last year's low point in May before turning up moderately in June and July.

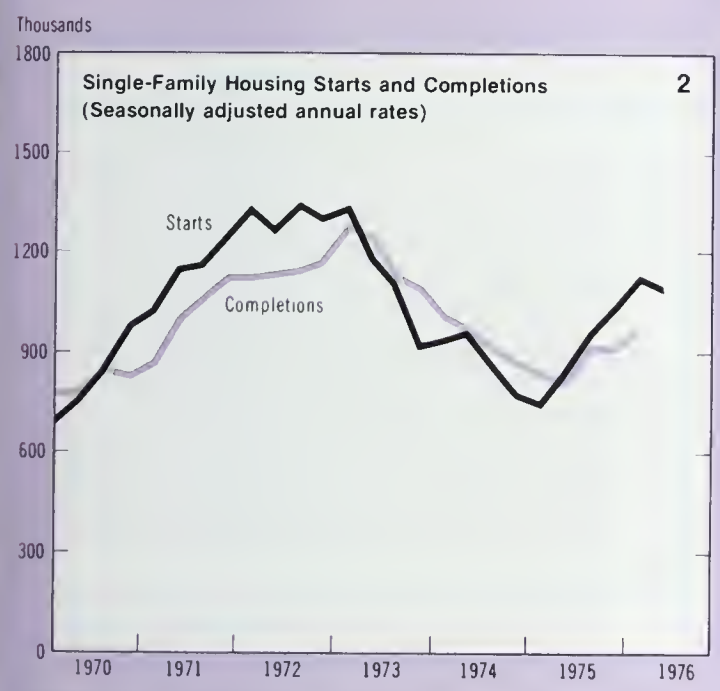
After nearly a year of comparative stability, new-home prices rose at an annual rate of 26 percent from August last year to March this year. The sharp rise moderated in the second quarter, however. This slackening, combined with stability in interest rates, offers at least the hope of a more moderate uptrend in mortgage payments and consequently a stronger gain in single-family starts later this year.

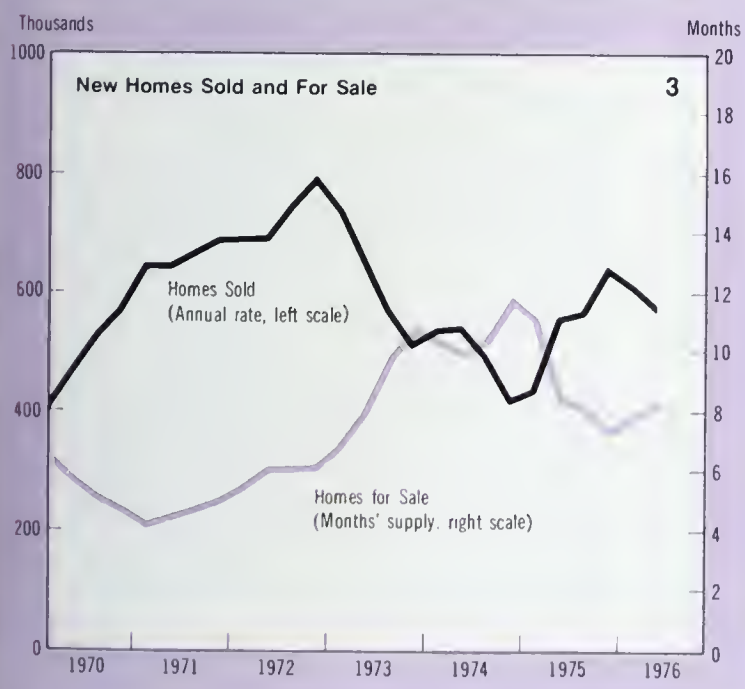
A basic determinant of the trend in mortgage interest rates in the short run has been the net volume of savings flowing into savings and loan institutions. The savings flow, in turn, depends primarily on changes in the interest rates offered on competing savings instruments—chiefly those on shorter-term Treasury securities. These rates are quite volatile, while those offered by savings and loan institutions are relatively inflexible because of legal ceilings and because the average interest rate on their mortgage portfolio changes only slowly over time.

In 1973 and 1974, tightening monetary policy in response to severe inflation pushed Treasury bill rates to record highs—over 9 percent in late 1974—and consequently, the net flow of savings into savings and loan institutions was almost choked off. Mortgage interest rates rose very sharply and housing starts fell steeply. Conversely, the subsequent drop in bill rates and their relatively low levels throughout 1975 facilitated a record net flow of money into savings and loans—$30 billion for 1975 as a whole. It was this money which largely financed the year's sharp recovery in housing starts. The savings flow is still very large, although it tapered off somewhat between January and June, and commitments for mortgage lending are very high. It would appear that there are sufficient funds to finance a sizable further increase in housing starts. The large supply of funds should also serve to restrain mortgage interest rates.

The Single-Family Home Situation

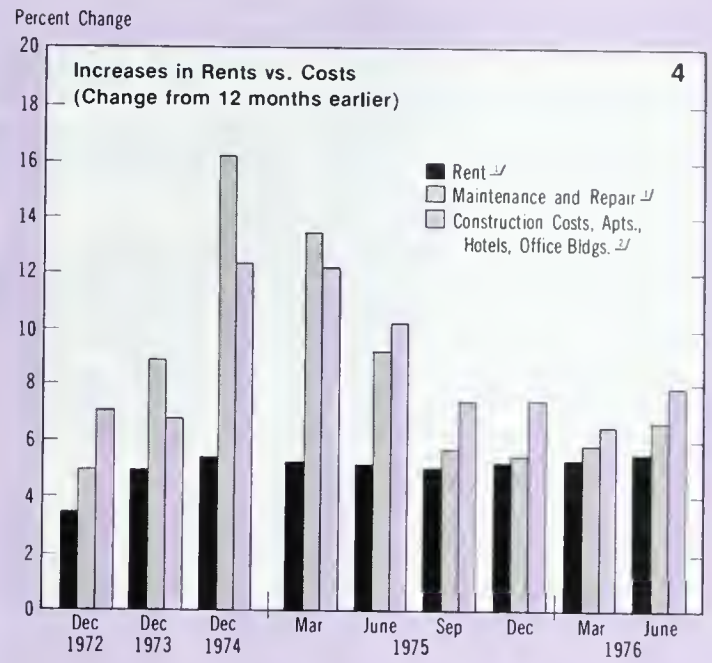


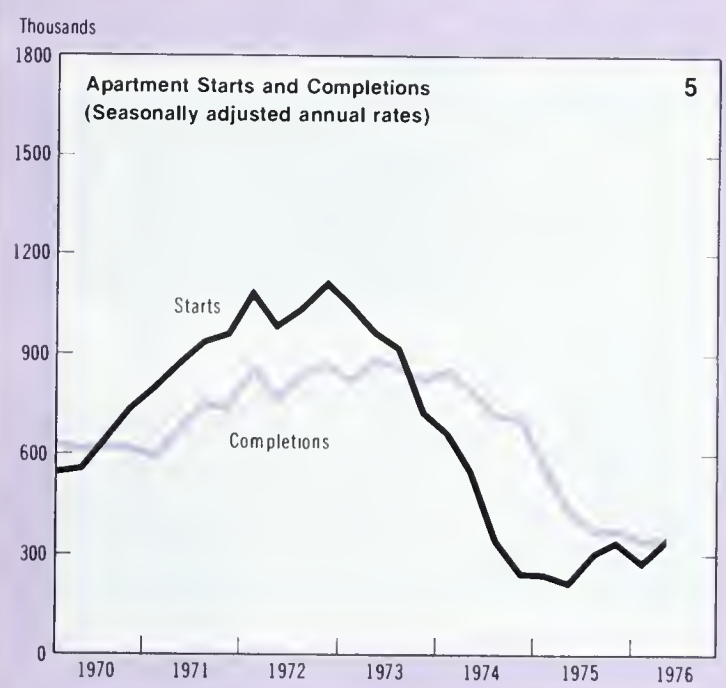


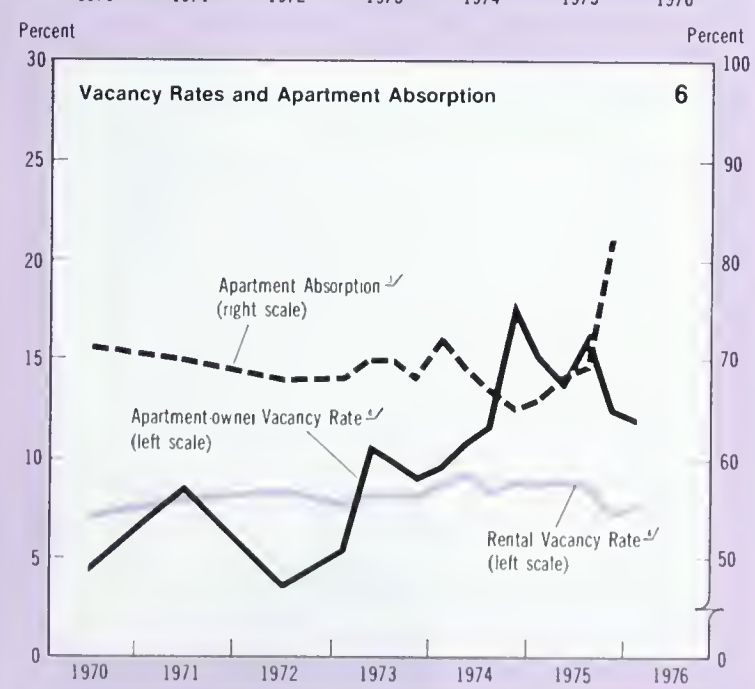


1/ At current average new home price and mortgage interest rate

The Apartment Situation







1/ From Consumer Price Index
2/ Boeckh Index
3/ Percent of new rental apartments rented within 3 months
4/ Apartments in buildings with 5 or more units

The Research Associate:

Where Familiarit Breeds Respect

Alma Coats is a chemist with Hooker Chemical currently working as a Research Associate for the Society of the Plastics Industry.

Just as exchanges of people can improve rela tions between countries, assignments of em ployees are leading to increased understanding be tween business and government in this country.

The Research Associate Program at Commerce' National Bureau of Standards is helping to buil this understanding by allowing U.S. firms and busi ness associations to send technical employees t use the elaborate facilities at NBS laboratories i Boulder, Colorado, and Gaithersburg, Maryland.

The program enables scientists and engineer from the private sector, both domestic and foreig as well as state and local governments and occa sionally the academic community, to work on full-time basis for specified periods at NBS o projects of mutual interest to NBS and the sponso

The base criteria for a program are simple: i must have nonproprietary objectives; it must b within the scope of NBS activities and interests and it must offer the prospect of publishable re sults of interest and significance to the industria and technical communities represented, and thu ultimately to the public.

The programs start when convenient to both par ties and may last from a few months to severa years. They may be staffed by one or many As sociates. The American Dental Association researc unit, something of an unusual case, currently ha 22, including physical chemists, ceramists, metal lurgists, dentists, crystallographers, a mathema tician, and supporting personnel.

A Research Associate must have appropriate aca demic background and sufficient experience to pe form independent research in the field covered b the program. The sponsor and NBS must agree o the associate's qualifications and acceptability f the assignment.

"My experience here is going to prove very val uable to my company when I return," says Alm Coats of Hooker Chemical. "This definitely need to be an ongoing program, because of the improve technology that's developing all the time. I'm go ing to make a firm recommendation to my compan that they continue to make use of this program b sending someone else here after I finish."

"The facilities here are so much better," say Randall Lawson, a Research Associate from th Gypsum Association who is trying to devise a te measuring the fire-resistive properties of gypsu board products. "Also, the quality of the staff r excellent There's a much broader range of techn

l knowledge available here than you would find any industrial research situation."

"The equipment and people that are available re can't be duplicated anywhere else," says Alan eierhofer of the Manmade Fiber Producers Asciation, who is trying to establish the fire hazard tential of the different apparel fibers. "It was mewhat of a transition at first, learning the govnment's way of doing things, but it's worked out ite nicely."

"The task of developing standards for consumer oducts is very difficult, and both industry and vernment are faced with serious problems in this ea," says Joe Dort of Sears, Roebuck. He is ying to develop tests to accurately predict the rvice life of small appliances. "Lab tests are fficult to relate to actual use by consumers, since e amount of time an appliance is operated and e treatment it receives varies from user to user. e're trying to devise tests that come as close as ssible to the reality of actual use and abuse by consumer."

The advantages of having a company scientist or gineer working on non-proprietary matters (rearch that will not be held secret) at NBS have tracted more than 400 companies and trade orgazations and some 1500 individuals to the Bureau ıce the program began in 1920.

Some of the advantages are obvious. There is e use of the NBS computer and libraries, the oratories and special research facilities that are ficult to match anywhere else. There is the adntage of working with the NBS staff, which inides many scientists of recognized importance in eir fields.

A Research Associate remains the employee of e sponsoring organization. His employer pays his lary, fringe benefits and travel, and makes arngements as necessary for temporary relocation the Research Associate for the period of his asgnment to the program.

"As to salary level there are no requirements," ys Peter R. de Bruyn, the NBS liaison officer who ordinates the program. "But we do suggest that ey be comparable to the levels of the people ey'll be working with. That way nobody feels y resentment about different compensation for ing essentially the same job."

The sponsors also pay for any special supplies or vices required by their associates, such as comter time, unusual or expensive materials, or the use of technician assistance, just like any NBS unit would.

NBS provides, at no cost to the sponsor, technical supervision, office and laboratory space, routine supplies and services, and the use of available research equipment not normally subject to time or usage charges.

"Everybody carries his share of the load and everybody benefits," says de Bruyn.

Each memo of agreement setting up a research associate program assigns a specific NBS supervisor to each associate, assuring the sponsoring organization that their employee will not fall between the cracks, and will know where to turn with problems.

"Many of these associates are people on whom the company has had an eye for some time as potential comers, and quite a few of them come home to promotions. Consequently, especially in firms that have continuing programs or have run programs in the past, these assignments tend to be looked on as a plus and the competition for them can get pretty intense," says de Bruyn.

"They also value the acquaintances they make among their contemporaries—both the other associates and the government specialists they work with —which will prove useful later."

A recent listing contained 21 projects currently in progress, with 5 of them, involving Research Associates, dealing with problems associated with fire. Why the emphasis on fire? There are probably many reasons, but almost certainly one of them is the fact that it is possible at NBS to conduct full scale "burns" of rooms and vehicles inside a 6,500 cubic meter test chamber—a facility that most companies do not have.

Other associates are studying the impact resistance of eyeglass lenses, the criteria for performance of automatic data processing systems, the measurement of paper characteristics, energy conservation in mobile homes, and dental materials.

Found a home

Many firms run a succession of programs, usually of about two years duration. Armstrong Cork has had at least one associate here for the past 40 years.

The longest-running association on a continuing basis is with the American Dental Association, which dates back to 1929. This association has

. . . the advantages are obvious. There is the use of the NBS computer and libraries, the laboratories and special research facilities . . .

Dentist Dr. George Paffenbarger is a Senior Research Associate representing the American Dental Association.

Work on consumer product technology is just beginning . . .

produced more than 600 publications, including books, reports and articles in various professional journals.

There are other places, of course, where this work could be done, but, notes Dr. George Paffenbarger, senior research associate of the ADA unit, "In no instance would the ADA have the facilities, or expertise, or large laboratories such as are available here at the National Bureau of Standards."

"Thus far there's been a very minimum of trouble," reports de Bruyn. "The thing's been running for more than 55 years without becoming ossified, which is more than you can say about many programs, in or out of government. This program has been climbing steadily since 1970. We're pleased, and a little bit puzzled, because it's all happened during a period when everyone was crying that they were 'research poor' and firms were generally lowering their research goals."

"Actually, I've got one of the easiest sales jobs in the world. I'm trying to sell people something they've paid for already—with their taxes. These facilities are available and waiting for them.

"This program is open to all; our problem is getting the word around.

"It takes a while to convince scientists that you're going to represent them and their capabilities correctly. The steady increase in the number of calls I receive from technical people around the Bureau, suggesting areas that might prove promising for a research associate project, is the best evidence to me that the program has really caught on.

"We're not in competition with private labs. What we offer is an unbiased source that everyone's willing to accept. All of the results of the program are published, and industrial labs can then pick up the technology that has been developed and profit from it.

"In some cases, it could even ultimately provide the basis for an entirely new industry.

"New measurement technology is the end product. What has evolved from the program to date? Among other things, a new Standard Reference Material for steels based on work done by a U.S. Steel Research Associate. And, through the contribution of a Research Associate sponsored by IBM, a secondary standard computer amplitude tape is now available to industry as a regular Standard Reference Material.

"What each associate is seeking is a new measurement procedure in a highly specialized area, that will be acceptable to everyone in the field. They're looking for a test that you can plug every piece of a particular material into. Since both industry and government have had a hand in it, these associations usually result in very rational standards that protect the public interest without hindering industry.

"The results are available to all. We want everyone to use our stuff. For example," de Bruyn goes on, "John Robertson was a research associate from Dow Chemical. He brought ten years of experience in the energy conservation field to NBS. He'd been dreaming up ways to conserve energy years before any of the rest of us even dreamed about an energy crisis. Well, John put his decade of experience into our *Energy Conservation Program Guide for Industry and Commerce*, a guidebook especially designed to help smaller and medium-sized firms get a handle on their energy problem. That was an extremely generous contribution by one firm to all of industry."

The Atomic Industrial Forum's agreement calls for research into measuring techniques for radioactive pharmaceuticals, an area which is "pretty crucial to the public that the situation is properly handled," de Bruyn points out.

The National Microfilm Association sent a Research Associate to NBS with a major problem: the microfilm on which the Library of Congress was preserving the nation's priceless documents had, unaccountably, started to deteriorate. The problem was traced to a gas evolving from the cardboard storage containers. Substituting stainless steel containers solved the problem.

However, not all Research Associates produce such dramatic fruit. Nor are the solutions often that simple. "It's usually a matter of the data that's developed here ultimately filtering down to the public in the form of products incorporating it. Much of this material is significant scientifically, but very little of it has any dramatic one-shot impact," says de Bruyn.

A number of governmental agencies have used the program: In 1930 the Port of New York Authority sent specialists down to do some research relating to bridge towers, and in 1940 the Florida Citrus Commission did an analysis of citrus juices. Universities, too, occasionally make use of the program, such as the time Yale sent a technical team down to do optics research.

Work on consumer product technology is just beginning, and an associate from Sears, Roebuck has been assigned to NBS Gaithersburg headquarters since last November. Sometimes these agreements turn into two-way streets, with the government sending a specialist out to work in private laboratories. This has happened in the Sears case, with an NBS scientist being assigned to Sears under the provisions of the Federal Training Act. "He's learning how they do it in industry, which we need to know if we're going to deal with the consumer product problem realistically," says de Bruyn.

Research Associate Programs still have rather informal beginnings. The initiative may come from either industry or the Bureau, depending upon who first conceives a project that might be of interest to the other.

Representatives of a prospective sponsor get together with the appropriate members of the NBS staff at the invitation of either party to discuss the details of a potential program. De Bruyn works with them to establish a mutually acceptable project definition, statement of objectives, and work plan. Following this, with the assistance of members of the NBS legal, patent, budget and accounting staffs, he negotiates with the sponsor's management personnel a Memorandum of Agreement describing the program and setting forth the terms and conditions governing the relationship between the sponsoring organization and NBS.

To sum it up, "The Research Associate Program helps give each of us a mutual perspective as to what the others' problems are, says Sear's Joe Dort.

"If government and industry understand each other, they should be able to work out solutions that are beneficial to both, and eventually the public, because that's what it's all about." ☆

The Second Time Around

FEDERAL GOVERNMENT EMPHASIZES RECYCLING

Having drawn up a nationwide prescription for conserving energy through recycling, Uncle Sam is now taking his own medicine.

Specific Federal Government programs, according to a report to Congress by the Comptroller General of the United States, include:

- The General Services Administration, major purchaser for Federal Government agencies, has revised 86 specifications for paper-based products to require various percentages ranging from 3 to 100 percent of recycled fiber. (The specifications inform the potential contractors of the requirements necessary to supply the government with an acceptable product.) Procurements of more than $66 million have been made under the revised specifications. In addition, specifications for tires and plastic pipe were altered to permit the use of reclaimed materials at the supplier's discretion.
- The Department of Defense, another leading purchaser, is reviewing its existing policies concerning procurement specifications to determine what changes can be made to further enhance the use of recycled materials.
- The Environmental Protection Agency has issued voluntary guidelines and procedures to be followed by federal agencies for procuring products that contain recycled material. The guidelines also apply to products purchased by contractors when the government agency drafts the specifications.
- An Energy Policy and Conservation Act of 1975 was enacted requiring Commerce's National Bureau of Standards and the Federal Trade Commission to develop and issue test procedures for the recycling of used oil. The Act also requires that federal procurement policies be revised to encourage purchase of recycled oil for both military and nonmilitary use. Recycled oil is defined in the Act as re-refined or otherwise processed used oil or a blend of such used oil and new oil determined to be substantially equivalent to new oil for a particular end use.

The impact of federal procurement on the country's economic and social well-being is far-reaching. By taking a strong position, the government can not only bring recycled products into more widespread use but also help achieve the national goals of conserving energy and natural resources.

The Federal Government spends billions of dollars annually on supplies and materials. In fiscal year 1976, total government-wide spending totaled $41.764 billion, with Defense making $32.630 billion in purchases and General Services, $4.199 billion.

In addition to conserving natural resources, increased use of recycled materials will reduce the volume of wastes that would otherwise require disposal and, thereby, the cost of that disposal. By saving energy, it will help alleviate balance-of-payments problems and dependency on foreign sources of supply.

The National Commission on Materials Policy

. . . the government can not only bring recycled products into more widespread use but also help achieve the national goals of conserving energy and natural resources.

. . . The Committee sees the solutions obtained as setting an example for the rest of the country.

has estimated that about 2 percent of the total U.S. energy demand could be saved by the recycling of available steel, aluminum and paper. The Environmental Protection Agency reports that recycling could provide possibly 8 percent of aluminum, 7 percent of iron, 20 percent of tin and 14 percent of paper consumed annually.

Congressional concern for federal action to stimulate recycling was manifested in 1970 by passage of the Resource Recovery Act, which amended the Solid Waste Disposal Act. The Energy Policy and Conservation Act of 1975 sets forth actions that are to be taken by federal agencies to encourage and promote the use of recycled oil.

A year and a half ago, the Comptroller General issued a report to Congress citing three major issues affecting the economics of resource recovery which involve the Federal Government:

- Possible discrimination in freight rates for secondary materials;
- Taxes which favor the use of virgin materials over secondary materials; and
- Federal procurement policy which limits purchase of products containing recovered and recycled materials.

The Environmental Protection Agency believes that one reason the Federal Government has been hesitant to purchase recycled materials is that there is a lack of technical data on the performance of products containing secondary materials. While the Federal Government is a large single consumer, federal expenditures represent only a small fraction of combined industrial, commercial and personal expenditures in most areas. However, federal procurement specifications and practices are widely circulated and duplicated by state and local governments and some industries.

The General Services Administration is seeking a saturation point for content of reclaimed materials for each specification. This saturation point may be described as the level of reclaimed fibers that a product specification can require without increasing cost or limiting competitive bidding on the product. Once this point has been achieved, the specification will be permanently rewritten to reflect that level of reclaimed materials content. In the meantime, product specifications are deviated from for a given procurement period.

The agency emphasized the paper commodity area because research reports state that paper and paperboard constitute about 50 percent of all solid waste materials.

The Comptroller's report recommended that the Administrator of the General Services Administration:

—Emphasize the program to purchase recycled products with written policies and objectives, to earmark the program as a permanent and unified effort. The program should include a reporting system for data to monitor and track progress on the overall actual purchases of recycled products.

—Issue guidelines to insure a consistent effort in each commodity area to increase recycled material content in product specifications.

Most Department of Defense specifications are written so that a product must meet a performance or structural design standard rather than specifying material content. Although some purchases of recycled products have been made, the department has not developed a coordinated program for the procurement and use of recycled products or materials.

As a result of various research studies, the Defense Supply Agency has begun acquainting the refining industry with the various petroleum products the government purchases that are not restricted to use of virgin base stocks. Also, the Department of the Army has prepared a plan for developing specifications for an automobile engine lubricating oil containing re-refined stocks.

The Air Force is promoting the use of recycled construction materials in housing projects, and there are several military packaging specifications that require using recycled paper.

The Defense Supply Agency also procures textile materials containing recycled fibers (wool and cotton) from a commercial manufacturer for shipment to another commercial manufacturer for processing into final products—primarily military uniforms and blankets. Several of these textile specifications allow up to 35 percent and 15 percent recycled content for wool and cotton, respectively.

The Army Audit Agency recommended that the Army purchase retreaded tires in lieu of new tires to replace those not recappable in Army retread facilities. After considering all points, the Army decided not to, because there was no insurance that commercially recapped tires would meet federal specifications. However, if federal specifications were made a part of the procurement package, the government would have the same insurance as obtained from other procurement actions involving commercial items.

The Comptroller General's recommendations to the Secretary of Defense include:

—Issue policy guidelines for procurement of recycled products when cost, quality and other objectives can be met.

—Assign responsibility to a single group or office within Defense for coordination of research and other efforts to procure recycled products.

—Determine the feasibility of considering recycled product procurement within the Value Engineering program or the Directorate for Energy. The former is a program to seek out better and cheaper ways to purchase needed supplies. The latter was established in 1973 to concentrate on energy reductions and related matters.

The department has indicated that when engineering, testing and technological data are available to substantiate a change from virgin to recycled material without sacrificing price or performance standards, it will include provisions for such substitution in its specifications.

Another means by which federal agencies are making an effort to improve recovery of resources from waste materials and promote the use of recycled products is through the Interagency Committee on Resource Recovery that was established by the General Services Administration. The Committee is composed of representatives from federal agencies and is the focal point for coordination of resource recovery studies. It considers potential areas for joint endeavor, and advises on increasing the quantity and quality of federal resource recovery.

While the Committee only addresses problems within the Federal Government, it sees the solutions obtained as setting an example for the rest of the country. ☆

Energy Digest

DOUBLED EFFICIENCY . . . The Energy Research and Development Administration and the Pratt & Whitney Aircraft Group have signed a contract for the design of an industrial gas turbine to significantly improve the operating efficiency of oil-fired equipment used by utilities to generate electricity during "peak" periods of demand. Turbine engines are widely used in the U.S. by utilities for generating electricity during "peaking" periods of the day when the need for electric generating capacity is considerably above the normal "base load." Operating efficiencies of these turbine engines now average around 20 percent, meaning that about 80 percent of the energy in the petroleum fuel is wasted. The ERDA/Pratt & Whitney Program is expected to result in the design of a gas turbine engine which could also be combined with a steam boiler to recover waste exhaust heat. This would result in an efficiency of between 45 and 58 percent.

SPREADING THE WORD . . . The Franklin Institute Research Laboratories (FIRL) of Philadelphia and its subcontractor, Chilton Co. of Radnor, Pa., have contracted with the Department of Housing and Urban Development to promote the application of solar energy technology by the non-scientific community in the country. This includes builders, general contractors, community planners, zoning boards, building code officials, mortgage lenders, insurance companies, potential homeowners, and architects. The goal of the project is to shorten the time gap between the technical development and the widespread application of this environmentally clean, renewable energy source. FIRL will collect all existing literature and data on solar energy from both private and public sources, including ERDA and the HUD Solar Heating and Cooling Demonstration Program. Information will be entered into a central computerized data bank for dissemination to all potential solar energy users.

LOWER OPERATING LIMITS . . . The Nuclear Regulatory Commission staff has changed the operating limits in five nuclear power plants to assure compliance with criteria for the performance of emergency core cooling systems. Backup safety features are designed to provide water to cool the nuclear fuel should the normal water supply be unavailable. Combustion Engineering, Inc., the manufacturer of the reactor fuel for these five plants, has informed the NRC that as part of its continuing audit program several errors were found in the computer codes used for evaluation of the performance of emergency core cooling systems. The changes lower the maximum allowable rate of heat generation in the nuclear fuel, but the magnitude of the change is not expected to result in a reduction in the electrical power generated by the plants. The facilities affected are: Maine Yankee Nuclear Power Plant, Wiscasset, Maine; Millstone Unit No. 2, Waterford, Conn.; Calvert Cliffs Unit No. 1, Lusby, Md.; St. Lucie No. 1, Ft. Pierce, Fla.; and Ft. Calhoun, Omaha, Neb.

HIGH PRESSURE DEVELOPMENT . . . A new centrifugal compressor capable of reinjecting natural gas into geological reservoirs at pressures in the 8000-9000 p.s.i.a. range has been successfully developed, reports the Elliott Co. of Jeannette, Pa. "The design and development of this centrifugal compressor was a major state-of-the-art breakthrough," said Carl H. Geary, a development engineer with Elliott. The compressor was needed to reinject natural gas recovered from North Sea crude oil. Centrifugal compressors had never before been required to operate at such high pressure, according to Geary. The unit has been operating continuously since last September.

RECYCLING SURGE . . . One-fourth of all aluminum beverage cans sold in the U.S. in 1975 were returned, netting Americans $26 million for their efforts, cleaning up the country, and saving energy and other resources. The Aluminum Association, using Bureau of Mines statistics, reports that a record 3.9 billion all-aluminum cans—up 70 percent from 1974—were returned and recycled last year. Recycled into new cans and other aluminum products, the returned cans represent a significant energy savings because aluminum can be recycled for less than 5 percent of the energy needed to make virgin aluminum. Also, aluminum can be recycled indefinitely. The unusual growth in 1975 was largely the result of the high value of aluminum. Most can collection centers reportedly pay 15 cents a pound—about 23 cans—for aluminum. Copies of the Aluminum Can Center Directory, which lists location of these centers and information on aluminum can recycling activities are available free from the Aluminum Association, 750 Third Avenue, New York, N.Y. 10017.

Richardson Calls Energy Reliance 'Catastrophic'

COMMERCE SECRETARY STRESSES NEED FOR ENACTMENT OF ENERGY LEGISLATION

Secretary of Commerce Elliot L. Richardson has warned that a new oil embargo could be "literally catastrophic" and urged the enactment of a comprehensive energy independence program before time runs out.

Speaking before the International Platform Association in Washington, D.C., recently, Richardson called it "an unfortunate irony that as we celebrate the 200th anniversary of our hard-won sovereign independence, we so complacently indulge a process which day by day renders us more and more dependent on insecure foreign sources of oil. It is indeed remarkable that we would attempt to remember so well events now two centuries past, as we seem to forget the energy crisis which, as a matter of general perception, involves a history of barely more than two years.

"It is true, of course, that the effects of the Arab oil embargo, and the associated price increases, are not pleasant to recall. By February of 1974, crude oil imports were reduced to less than half their level at the time of the embargo in October of 1973.

"Gasoline stations curtailed their service. Gasoline lines lengthened. Tempers grew heated. Panic buying ensued. Fears of heating oil shortages spread. Interior temperatures dropped. For what now turns out to have been a fleeting moment, the word 'crisis' seemed to have meaning.

"And for the first quarter of 1974, according to Federal Energy Administration estimates, U.S. output fell by $10-20 billion, while unemployment increased by more than 500,000, as a result of the embargo.

"But however unpleasant it may be to recall these facts of the recent past, it must be very much more so to contemplate the effects of a new embargo. For, as a society, we have failed adequately to address the basic underlying problems.

"The share of U.S. imports from Arab oil countries has not decreased; it has increased from 22 percent before the embargo to 37 percent today. And the Organization of Petroleum Exporting Countries (OPEC) now provides 82 percent of our oil import needs—compared with 70 percent just prior to the embargo.

"Richardson then cited the long term trend of increasing U.S. oil imports:

—In 1960, imports of 1.8 million barrels per day, or 19 percent of consumption.

—In 1970, imports of almost double that amount, 3.4 million barrels per day, or 23 percent of consumption.

—In 1975, imports of 6.0 million barrels per day, or 37 percent of consumption.

—This year, double the 1970 amount, with projected imports of 7.0 million barrels per day, or 43 percent of consumption—at an annual cost of $35 billion.

"If current trends continue—and if the President's energy program is not enacted," Richardson predicted, "imports could exceed 13 million barrels of oil per day in 1985.

"And if an embargo were imposed with import dependency at such a level, the results could be literally catastrophic. Even with one billion barrels in storage prior to the embargo, the economic consequence of a 50 percent effective embargo would involve a Gross National Product loss of more than $50 billion in the first year—and an associated loss of more than 1.3 million jobs. If storage were not adequately available, the GNP loss would increase to an annual rate of $170 billion—and the associated loss of jobs would be about 4.8 million.

"And indeed, if one considers the impatience which is characteristic of the American temperament, the prospect becomes even less attractive. The vying for limited resources domestically could become quite ugly. But, perhaps more seriously, it is reasonable to imagine that pressures would mount for a prompt international 'solution.'

"Some commentators, appreciating the potential for disaster, have argued that 'we have no national energy policy.' This conclusion is but a half-truth—and as such it distracts attention from what ought now to be the focus of public scrutiny and pressure with respect to the further development of national energy policy: the United States Congress."

The President's program has been presented in detail in the **Project Independence Report** and in the 1976 **National Energy Outlook.** According to Richardson, "It is a complex program—appropriate for the serious treatment of a complex problem. And it may well be that its complexity has hampered its effective communication."

Speaking of the ten points of the program, listed on page 11, Richardson stated that while considerable progress had been made under several of the headings, to achieve energy independence by the 1985 goal the policy must be implemented in its entirety.

"As we enter our third century since declaring our independence, we are somehow allowing ourselves the temporary comfort of ignoring this growing dependence. But to preserve our once-revolutionary independence—and to merit the congratulations we so easily offer ourselves in our Bicentennial enthusiasm—we will require what, in its own right, would approach a minor revolution: that serious problems be treated publicly with the seriousness they deserve; and that, consistent with such treatment, the Congress, promptly and responsibly, act."

Published Proceedings Of Energy Technology Conferences Available

Proceedings are now available from the 2nd and 3rd Energy Technology Conferences held in Washington, D.C., in May 1975 and March 1976 respectively.

The first conference concentrated on the major international activities in energy technology. Representatives from

Administration's Energy Policy

In simplified terms, the policy of the Administration can be summarized by the following ten points:

(1) To increase domestic production of energy resources, the Administration favors the maximum use of market incentives. Accordingly, we have proposed the deregulation of natural gas and oil.

(2) To further encourage domestic production of coal, oil and gas, we have resumed coal leasing, pursued outer continental shelf leasing, and sought the necessary authority to exploit the Naval Petroleum Reserves.

(3) To encourage the most rapid development of existing nuclear power technology, consistent with the dictates of safety, we have increased and accelerated nuclear research and development—particularly with respect to the problems of nuclear waste management. And to encourage the development of energy technologies for which private capital would not be available due to special problems of risk or scale, we have sought the authority for specially tailored incentives—as in the cases of our proposed synthetic fuels legislation and the Energy Independence Authority—while we continue to rely primarily on market-based incentives for most energy resource development.

(4) To foster the greater demand for coal, of which we have an abundant supply, and the associated conservation of oil and gas, of which our supplies are limited, we have favored the conversion of industrial and utility power plants from oil and gas to coal. Accordingly, because market forces alone would not yield the desired result, we have sought, and we have exercised, the authority to mandate such conversion.

(5) To encourage energy conservation, we favor the market incentives of equitably priced energy, along with complementary and supplementary inducements to the extent that these may be necessary and cost-effective. Accordingly, we have developed and implemented a successful voluntary industrial energy conservation program. We have also proposed and advanced the energy labelling of appliances and automobiles, and have sought legislative authority to establish mandatory thermal efficiency standards for all new homes and commercial buildings, to provide insulation tax credits for homes, and to provide weatherization assistance grants for low-income and elderly persons.

(6) To assure the efficient distribution of energy resources, we have supported legislation to expedite the construction of coal slurry pipelines and have proposed legislation to allow expedited development of the transportation system necessary to deliver natural gas from Alaska's Northern Slope.

(7) To assure the expeditious development of neergy resources and infrastructure while protecting environmental resources, we have proposed a balanced approach for energy impact assistance.

(8) To reduce the likelihood of a renewed embargo or of unacceptable oil price increases, we have pursued a balanced foreign policy in relation to the Middle East, we have commenced a process of modest diversification in our sources' of supply, and we have sought to advance responsible dialogue among consumers and producers through the Commission on International Economic Cooperation.

(9) For the longer term, we have dramatically increased research and development on renewable energy resources—geothermal, solar and nuclear fusion—which must, in time, replace our limited supplies of fossil fuels.

(10) And to protect against the possibility that these efforts should prove inadequate, we have sought appropriate stand-by capabilities. Domestically, we are developing a strategic petroleum reserve and have developed detailed contingency plans for allocation and rationing. And we are following a similar strategy internationally, in cooperation with other developed consuming countries, through the new International Energy Agency.

the United Kingdom, Canada, Japan, West Germany, France, the Netherlands and Mexico summarized their countries' energy programs. U.S. government and legislative officials discussed different aspects of U.S. energy policy.

The latter conference, subtitled Commercialization, provided overviews from top government officials in energy R&D, plus key leaders from the other sectors of the energy field. Their papers analyzed the present energy situation, described what will happen in the future, and considered what must be done to accomplish these future goals. All aspects of energy are covered, including policy, new technology, and constraints on applications of energy technology.

The books are available at $25 each from Government Institutes, Inc., 4733 Bethesda Ave. NW., Washington, D.C. 20014.

COMPUTER HELPS IMPROVE ENERGY USE IN YOUR HOME

We may not think of computers as creative—but a computer program developed at Commerce's National Bureau of Standards (NBS) is helping engineers and architects design more energy-efficient buildings.

The comprehensive, easy-to-use program is contained in a 398-page document, *NBSLD, the Computer Program for Heating and Cooling Loads in Buildings*. It is based upon extensive information accumulated over the past decades in various phases of building heat transfer problems, and is intended to be used for the design of equipment and air conditioning systems as well as for estimates of building energy requirements.

The program covers some 300 variables in three categories: the weather, the building and the way the building is operated. The computer output is presented in the form of a profile of heating and cooling loads on an hourly, daily, weekly, monthly or yearly basis.

The publication can be ordered for $4.60 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Please use order number C13.29/2:69.

Symposium To Examine Thermal Comfort Of People

How energy conservation measures and new building designs affect the comfort of people who live or work in them is the subject of a symposium next February at Commerce's National Bureau of Standards.

The Symposium on Thermal Analysis – Human Comfort Indoor Environment will bring together leading scientists, engineers, government officials, architects, physiologists and manufacturers. They will discuss how new energy conservation modifications to buildings will affect thermal comfort of people and what type of measurement technology will be required to assess these effects.

Some of the practices have no effect on the thermal comfort of occupants. However, others, such as limiting the use of heating, ventilating and air conditioning equipment, lower thermostat settings in winter, higher settings in summer, may have an adverse effect on occupants.

Additional information may be obtained from the symposium cochairmen: Dr. B. W. Mangum, B122 Physics Bldg., National Bureau of Standards, Washington, D.C. 20234 (301-921-2098) or Dr. J. E. Hill, B104 Building Research Bldg., same address (301-921-3512).

SINGLE FAMILY HOMES IN 10 STATES ELIGIBLE FOR SPECIAL ENERGY HELP

More than 6.7 million single-family-homeowners in ten states will have the opportunity beginning September 1 to participate in a joint Federal/State Home Energy Savers' Program. Different approaches by state energy offices to encourage homeowners to make energy conservation improvements will be tested.

Participating states are: Connecticut, Illinois (10 northern counties), Maryland, Nebraska, New York (Chautauqua County), Ohio, Rhode Island, South Carolina, Tennessee and Utah.

A wide variety of Federal Energy Administration (FEA) technical and financial information will be provided through the states, enabling homeowners to evaluate and improve the energy efficiency of their homes.

Nearly 80 percent of the nation's 47 million single-family homes are inadequately insulated, according to FEA estimates. Home heating and cooling in all of the country's single-family residences account for 12 percent of total national energy use. Homeowners who take simple corrective actions such as those being recommended in the ten-state program, to increase the thermal efficiency of their homes, could save as much as 15 to 30 percent of their fuel bills.

The major elements in the state programs will be a telephone hotline, a home retrofit "How To" course, and an FEA-supplied *Home Energy Savers' Workbook*. State energy offices will provide the workbook to homeowners seeking detailed information on how to conserve energy in the home. The training courses will be given by volunteers and will include instructions on how to perform an energy audit of the home. Information will also be included as to how a homeowner can make any necessary home energy-saving improvements, either by himself or with the assistance of a contractor.

State media efforts publicizing the program will vary in content, ranging from local information and distribution centers, direct mailings, and workshops, to speakers bureaus, information booths at county and town fairs and trade shows, payroll stuffers, and awards by Governors.

Two other states, Massachusetts and New Mexico, were selected by FEA earlier this year to participate in PROJECT CONSERVE, a computerized cost and savings system involving a brief questionnaire sent to all single-family homeowners. Participating homeowners then receive an analysis of their home's thermal characteristics and up to five recommendations for home improvements. Massachusetts has the program well under way with 135,000 participants as of mid-June. New Mexico will start in September.

Participating State Energy Offices

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Salt Lake City, Utah 84114
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Changes Wouldn't Improve Flow Of Funds To Small Technology-Based Firms

The flow of investment funds to small, technology-based firms might be increased by as much as 10 percent by changes in tax or securities regulations, or by loans and investment guarantees to the suppliers of those funds.

But direct government investment in these small firms may only displace private funds rather than increase the total flow of capital funds.

These are among the major conclusions of a comprehensive analysis of the venture capital market performed for the National Bureau of Standards' Experimental Technology Incentives Program.

The 18-month study for the Commerce unit found no flaws in the venture capital market that restrict the flow of funds to small technology-based firms. The venture capital market is defined as any source of funds supplied to these firms, and may include banks, private or public venture capital firms, small business investment companies, insurance companies or pension funds.

The study found no indications that these small technology-oriented firms with assets less than $5 million paid higher interest rates or returned more to their shareholders than other small firms. Nor do the venture capitalists earn higher profits than could be earned by investing in stocks or bonds.

Between 400 and 600 firms are active in the venture capital industry, and they supplied between $75 and $100 million annually to small technology-oriented firms in the late 1960s and early 1970s.

Reducing the tax rate on capital gains from 35 percent to 25 percent would increase the flow of funds to these firms by "at most" 10 percent, the study estimated.

Copies of the executive summary of the study, *An Analysis of Venture Capital Market Imperfections*, are available from Gregory C. Tassey, Room A735, Administration Building, National Bureau of Standards, Washington, D.C. 20234.

'STAR' AWARD PRESENTED TO FOOD AND DAIRY GROUP

The "STAR" award is born: Commerce's United States Travel Service (USTS) has presented its first "STAR" (Special Traveler Arrangements Recognition) to the Dairy and Food Industry Supply Association for its efforts in promoting and facilitating international attendance at a trade show.

The Association, headquartered in Washington, D.C., is hosting the Food and Dairy Expo '76 in Atlantic City, October 10-14.

The "STAR" award is open to any trade show organization that makes available: foreign language brochures describing its event, an international reception center at its trade show staffed by bilingual personnel, free or reduced show registration or admission for international attendees, and foreign currency and travelers check conversion facilities.

In addition, the trade show organization must make available to those attending from abroad any two of the following:

- temporary foreign language secretarial assistance;
- guided technical and plant visits;
- local travel and sightseeing assistance;
- free or reduced rate catalogs.

The organization may place an advertisement in a newspaper abroad as a substitute for one of the above.

USTS assists organizers of "STAR" trade shows in the promotion of international attendance by distributing brochures and information abroad through USTS field offices in six nations and through the commercial officers at U.S. diplomatic and consular offices.

FIRST USTS 'STAR'—*The Dairy and Food Industry Supply Assn. is the recipient of United States Travel Service's first "Star" award for promoting and facilitating international attendance at its trade shows. Here, George Weigold briefs linguists in the international lounge at the Food and Dairy Expo '72.*

These overseas agencies, using the information provided by USTS, then promote the trade show through their contacts with local businessmen, tour operators and media representatives.

"Recognizing trade shows that provide special services for international attendees is part of USTS' program to internationalize as many qualified U.S. trade shows as possible," Assistant Secretary of Commerce for Tourism Creighton Holden pointed out. "By increasing the number of international businessmen coming to our shores we increase foreign exchange earnings, thus decreasing the U.S. travel dollar balance deficit."

Organizations promoting trade shows of interest to international visitors able to meet the criteria should contact USTS' Conventions and Expositions Division, Department of Commerce, Washington, D.C. 20230.

U.S. Travel Dollar Deficit Down Slightly In 1975

Americans spent $3.13 billion more traveling abroad in 1975 than international visitors spent in the United States, according to the latest data from Commerce's Bureau of Economic Analysis. This was a decrease of less than one half of one percent over the 1974 figures, considerably smaller than had been expected. Commerce's United States Travel Service had projected a decline in the travel deficit of more than 10 percent, based on preliminary data.

International tourist receipts in the United States totaled $5.67 billion in 1975, while expenditures by Americans traveling abroad reached $8.80 billion.

Significantly, the U.S. travel dollar balance with respect to Canada was in surplus by $255 million, the first such favorable balance in more than a decade. A deficit of $147 million was recorded with respect to Mexico. Canada and Mexico are the major generators of international visitors to the USA.

The U.S. travel accounts with Western Europe continued to reflect negative balances in 1975. The travel accounts with South America and Japan, however, showed balances favorable to the United States.

The amount U.S. travelers paid to foreign carriers for transportation abroad increased 18.3 percent over the 1974 level. Conversely, the amount international tourists paid to U.S. flag carriers for transportation to this country decreased 2.6 percent in comparison with 1974. These two factors were major contributors to the slower-than-projected rate of decline in the travel deficit.

Long Island Association Publishes Business Guide

Residents of Long Island, N.Y., can fight City Hall—or compliment it—with the aid of the *Long Island Businessman's Guide to Public Officials 1976.*

The Guide is published annually by the Long Island Association of Commerce & Industry. It lists U.S. senators and representatives, state government officials and legislature, county elected and appointed officials as well as departments of public services, cities and towns on Long Island and their officials, and a page of correct salutations for addressing public officials.

Copies are available from the Long Long Island Association of Commerce & Industry, 131 Jericho Turnpike, Jericho, L.I., N.Y. 11753 (516-333-9300).

PATENTS ISSUED TO U.S. RESIDENTS

Calendar Year 1975

States and Territories	Patents	Plants	Designs	Total	One To Every
TOTAL	**46,603**	**124**	**3,428**	**50,155**	**4,216**
Alabama	230	0	20	250	14,360
Alaska	41	0	1	42	7,762
American Samoa	17	0	2	19	
Arizona	436	0	51	487	4,511
Arkansas	78	1	5	84	25,071
California	6,213	54	513	6,780	3,082
Canal Zone	6	0	1	7	
Colorado	546	0	54	600	4,147
Connecticut	1,515	1	161	1,677	1,837
Delaware	482	0	8	490	1,171
District of Columbia	84	0	5	89	7,955
Florida	974	10	77	1,061	7,790
Georgia	343	1	32	376	12,971
Guam	4	0	0	4	
Hawaii	61	0	2	63	12,794
Idaho	102	0	9	111	7,333
Illinois	3,677	11	267	3,955	2,803
Indiana	1,069	5	65	1,139	4,655
Iowa	346	2	38	386	7,433
Kansas	321	0	50	371	6,038
Kentucky	316	0	23	339	9,914
Louisiana	376	0	16	392	9,574
Maine	66	0	2	68	15,426
Maryland	972	0	32	1,004	4,035
Massachusetts	1,945	0	93	2,038	2,858
Michigan	2,588	4	169	2,761	3,311
Minnesota	985	2	93	1,080	3,632
Mississippi	105	0	1	106	21,915
Missouri	637	0	61	698	6,788
Montana	51	0	3	54	13,741
Nebraska	134	0	11	145	10,586
Nevada	90	0	8	98	5,959
New Hampshire	170	0	12	182	4,467
New Jersey	3,721	4	184	3,909	1,865
New Mexico	114	0	3	117	9,667
New York	4,468	1	440	4,909	3,686
North Carolina	514	1	43	558	9,586
North Dakota	37	0	1	38	16,368
Ohio	2,934	16	229	3,179	3,380
Oklahoma	677	1	39	717	3,743
Oregon	326	2	26	354	6,458
Pennsylvania	3,416	0	122	3,538	3,340
Puerto Rico	22	0	2	24	
Rhode Island	173	1	40	214	4,313
South Carolina	244	0	7	251	10,948
South Dakota	41	1	4	46	14,717
Tennessee	362	0	29	391	10,655
Texas	2,096	3	147	2,246	5,380
Utah	208	0	30	238	5,050
Vermont	78	0	4	82	5,744
Virginia	619	1	51	671	7,177
Virgin Islands	11	0	1	12	
Washington	513	0	40	553	6,313
West Virginia	141	0	1	142	12,690
Wisconsin	881	2	95	978	4,709
Wyoming	27	0	5	32	11,563

California Led Invention Parade Again In 1975

California led the nation again in the number of patents granted to its inventors during 1975.

A total of 76,426 patents were issued by the Patent and Trademark Office during the year. Of those, U.S. inventors received a total of 50,155, which is the equivalent of one per 4,216 in the total population.

Californians received 6,780. New York ranked second with 4,909; Illinois, third with 3,955; New Jersey, fourth with 3,909; Pennsylvania, fifth with 3,538; and Ohio, sixth with 3,179.

On a per capita basis, the State of Delaware led with 490—one to every 1,171 persons.

Residents of foreign countries received 26,271 patents. Japan led with 6,574; the Federal Republic of Germany was second with 6,171; United Kingdom, third with 3,158; France, fourth with 2,436; Switzerland, fifth with 1,473; and Canada, sixth with 1,409.

Commerce Agency Offers American History Books

Commerce's National Technical Information Service (NTIS) has issued limited editions of a number of books on American history, called The Americana Collection. The volumes and their prices are:

History of the Star Spangled Banner from 1814 to Present, PB-196 294/PAG, $13.50.

Institutional Study, House of Representatives 1790-1800, PB-220 395/PAG, $5.50.

Yorktown Waterfront, PB-222 493/PAG, $9.25.

Guilford Courthouse, PB-208 056/PAG, $7.50.

Fort McHenry Military Structures, PB-200 644/PAG, $5.00.

National Background Studies of the National Park Service (A Bibliography With Abstracts), NTIS/PS-76/0061/PAG, $25.

The complete collection is available for $50.00, order number PB-251 976/SET/PAG. Anyone who has already purchased the *History of the Star Spangled Banner* and wishes to complete the set should attach a copy of the blue card as proof of purchase and enclose $36.50.

The books can be ordered from NTIS Information Center & Bookstore, U.S. Department of Commerce, 425-13th St. NW., Suite 620, Washington, D.C. 20004.

Reprints Offered On Urban Coastal Management

Reprints of two articles on renovating and revitalizing the urban waterfront are available from the New York Sea Grant Institute.

The first, *The Urban Port: A Hidden Resource for the City and the Coastal Zone*, uses Manhattan's West side as an example of how changing activity patterns open up possibilities for renewal.

The second, *The Urban Waterfront: Opportunities for Renewal*, points out how the decline of urban port areas makes it essential for policy makers to recognize and evaluate port areas having potential for redevelopment under coastal zone management programs. Examples are given of how under-used structures and large parcels of vacant waterfront land can be made over without disrupting existing neighborhoods or industries.

The author is Mitchell Moss, an assistant professor at New York University's Graduate School of Public Affairs. The articles, priced at 50 cents each, can be ordered from New York Sea Grant Institute, State University of New York, 99 Washington Ave., Albany, N.Y. 12246 (518-474-5787).

State of West Virginia Updates Publications

People doing business in West Virginia will find two updated publications from the state's Department of Commerce helpful.

The 1976 edition of *The West Virginia Manufacturing Directory* contains information about all state manufacturing industries as designated under the Standard Industrial Classification (SIC) categories numbers 20-39. Six color-coded sections offer easy cross references that index entries alphabetically, by products made, by county and city, by exporters and by SIC number.

Information on company address and telephone number, plant manager or chief executive officer, products and number of employees is included.

The 1976 West Virginia Economic Profile contains facts, figures, maps, charts, graphs and photographs illustrating 28 separate topics covering industry, natural resources, education, government and socio/economics.

The publications are available from: Industrial Development Division, West Virginia Department of Commerce, State Capitol Complex, Charleston, W. Va. 25305. The *Economic Profile* is free; the *Manufacturing Directory* is priced at $10.

ABA Conference Proceedings Available

The American Bankers Association is making available audio cassettes and printed copies of proceedings of its recent operations and automation conferences.

The 1976 National Trust Operations and Automation Workshop Proceedings, No. 068800, is a reference document for trust operations bankers.

The 1976 Operations and Automation Conference Proceedings, No. 069100, contains the latest information on operations, data processing and electronic funds transfer systems. (This will be available after October 1.)

Each of these printed proceedings is priced at $17.50, and can be obtained from the Order Processing Department, American Bankers Association, 1120 Connecticut Ave. NW., Washington, D.C. 20036.

Selected sessions of the latter conference are available in audio cassettes. Order forms, listing sessions and prices, may be obtained from Ms. Charlotte Polly, Operations & Automation Div., American Bankers Assn., 1120 Connecticut Ave. NW., Washington D.C. 20036.

Calendar Of Business Events

Aug. 18—Olean, N.Y.—Business Development Conference, St. Bonaventure University. Sponsor: Rep. Stan N. Lundine. For information, Robert F. Magee, Commerce Buffalo Office.

Aug. 22-25—Salt Lake City — Discover America International Pow Wow & Travel Mart, Salt Palace. For information, Peter Cass, Discover America Travel Organizations, Inc., Suite 920, 1110 Connecticut Ave. NW., Washington, D.C. 20036 (202-293-1433).

Aug. 22-27—Chicago—Advertising Week, Conrad Hilton Hotel. Sponsor: Advertising Age. For information, Crain Educational Division, 740 Rush St., Chicago 60611.

Aug. 23-24 — Atlanta — A Professional Approach to Marketing Construction Services, Stouffer's Atlanta Inn. For information, Madeline Graeter, Group Communications, Inc., 6101 Southwest Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

Aug. 23-24 — Chicago — Executive Self-Management, Hyatt Water Tower. Sponsor: Wharton School, Univ. of Pa. For information, Heidi Kaplan, New York Management Ctr., 360 Lexington Ave., New York 10017 (212-953-7262).

Aug. 23-25—Minneapolis - Fundamentals of Finance and Accounting for the Non-Financial Executive, Radisson Downtown. Sponsor: The Wharton School. For information, Heidi Kaplan, New York Management Center, 360 Lexington Ave., New York 10017 (212-953-7262).

Aug. 23-26—Park City, Utah — Energy and the Public Lands. Sponsors: The College of Law, Univ. of Utah, and The Environmental Law Institute. For information, Conferences & Institutes, Div. of Continuing Education, 1152 Annex, College of Law, University of Utah, Salt Lake City, Utah 84112.

Aug. 23-27—New York—Tooling for Injection Molding, Barbizon Plaza. Sponsor: New York University. For information, Heidi Kaplan, see address above.

Aug. 23-27—Denver—Injection Molding, Regency Hotel. Sponsor: New York Univ. For information, Heidi Kaplan, see address above.

Aug. 23-27—Atlanta—National Society of Public Accountants 31st Annual Convention, Peachtree Plaza Hotel. For information, NSPA, 1717 Pennsylvania Ave. NW., Washington, D.C. 20006 (202-298-9040).

Aug. 24-25—San Diego—Industrial Applications of High Power Laser Technology, Town & Country Hotel. Sponsors: Society of Manufacturing Engineers and Society of Photo-Optical Instrumentation Engineers. For information, SPIE, P.O. Box 1146, Palos Verdes Estates, Calif. 90274.

Aug. 25-26 — Atlanta — Design/Build, Build/Lease and Financing Building Projects, Stouffer's Atlanta Inn. For information, Group Communications, Inc., see address above.

Aug. 26-27—San Diego—Practical Applications of Low Power Lasers, Town & Country Hotel. For information, Society of Photo-Optical Instrumentation Engineers, see address above.

Aug. 27 — Muskegon — Business Opportunity/Federal Procurement Conference, L. C. Walker Sports Arena. Sponsor: Rep. Guy Vander Jagt. For information, Jim Gibson, c/o Rep. Vander Jagt, 950 W. Norton Ave., Muskegon, Mich. 49442 (616-733-2770).

Aug. 30—Boston—22nd Annual Seminar & Exhibits. American Society for Industrial Security, Sheraton Boston. For information, ASIS, Suite 651, 2000 K St. NW., Washington, D.C. 20006 (202-331-7887.)

Aug. 30-Sept. 1—Chicago—Project Management for Computer Systems, University of Chicago Center for Continuing Education. For information, Heidi Kaplan, see address above.

Sept. 1-3—Aspen, Colo.—Fundamentals of Finance & Accounting for the Non-Financial Executive, Snowmass Resort. Sponsor: Wharton School, Univ. of Pa. For information, Heidi Kaplan, see address above.

Sept. 5-10—Dallas 1976 Fall Gift, Jewelry and Housewares Show, Dallas Market Center. For information, Delores Lehr, Vice President, Public Relations/Advertising, Dallas Market Center, 2100 Stemmons Freeway, Dallas, Tex. 75207 (214-748-6832).

Disclosure Seen Curb To Foreign Payoffs

ADMINISTRATION TASK FORCE PREPARES BILL RELYING ON PUBLIC NOTICE AS DETERRENT

The deterrent force of public disclosure can significantly curb improper payments to foreign authorities by U.S. firms.

This conclusion of a Presidential Task Force on Questionable Corporate Payments Abroad is embodied in proposed legislation sent to Congress by the Administration on Aug. 3. The bill would require U.S. enterprises to report a broad range of payments relative to government transactions as well as political contributions and payments made directly to foreign officials. This requirement would include naming of recipients.

Secretary of Commerce Elliott L. Richardson, who led the Task Force through four months of study of the problem, explained that the bill relies on disclosure rather than criminal penalties as its deterrent because of the inherent difficulty of enforcing such penalties.

Other efforts needed

President Ford noted in transmitting the Administration proposal that "the questionable payments problem is an international problem which cannot be corrected by the United States acting alone. Consequently, we are continuing our efforts to secure an international agreement which will establish a mutually acceptable framework for international cooperation in eliminating improper business practices."

The U.S. earlier this year requested the United Nations Economic and Social Council to take priority action on an agreement curbing corrupt practices affecting international trade and investment. The UN unit decided Aug. 4 to begin work on such a pact. The U.S. also recently signed an agreement in the Organization for Economic Cooperation and Development on a code for multinational corporations that calls for voluntary compliance in ending such corrupt practices.

By requiring reporting of all significant payments, whether proper or improper, made in connection with business with foreign governments, the proposed Administration legislation aims to avoid difficult problems of definition and proof in enforcement of legislation that seeks to deal specifically with bribery or extortion abroad. Proposed penalties for violations include civil penalties up to $100,000 and criminal penalties up to $500,000 with possible imprisonment up to three years.

Reports will be made available to the Departments of State and Justice as well as to the Internal Revenue Service and the Securities and Exchange Commission. The Department of Justice and the State Department will, in appropriate instances, relay reported information to authorities in foreign jurisdictions to assist them in their own law enforcement.

Reports also will be made available to appropriate congressional committees. All reports would be made available to the public one year from the date of their filing, except where a specific written determination is made by the Secretary of State or the Attorney General that considerations of foreign policy or judicial process dictate against disclosure.

SEC action applauded

The Securities and Exchange Commission, the President noted in transmitting his proposal, already has taken vigorous action to discover questionable or illegal corporate payments and to require public disclosure of material facts relating to them. He referred to the SEC's experience that public disclosure of matters of this kind generally leads to their cessation. In virtually all the cases reported to the Commission, it was noted, companies discovering payments of this kind have taken effective steps to stop them and to assure that they do not recur.

Not all firms engaged in international commerce, however, are regulated under the securities laws and thus subject to the disclosure requirements of the Commission. The Commission requires disclosure of payments only when necessary or appropriate for the protection of investors, nor does it require naming of recipients.

The Administration bill consequently broadens the field of reporting requirements to include all U.S. participants in international commerce. It calls for the involvement of the Secretaries of State and Commerce and the Attorney General in administering a system covering the full range of public policy interests involved in the questionable payments problem.

To minimize reporting

The Secretary of Commerce is directed to take every feasible step to minimize the reporting burdens under this new legislation. Small or routine payments, including tax payments, are excluded. The legislation directs the Secretary to consult with other federal agencies to eliminate duplicative reporting. Where appropriate, agencies are authorized to combine reporting and record-keeping in single forms.

The Administration's proposed bill intends to build upon the Securities and Exchange Commission's expertise in financial reporting. Persons subject to the Commission's jurisdiction must maintain books and records that are sufficient to provide data the Commission believes should be disclosed. With some further SEC regulations now contemplated in this area, it may be unnecessary for the Secretary of Commerce to impose additional record-keeping requirements on companies regulated by the Commission, to enable compliance with the proposed legislation.

The Task Force on Questionable Corporate Payments Abroad was set up by President Ford on March 31 to make a sweeping policy review of approaches to the widely-publicized problems of bribes and other improper payments in a number of nations. In mid-June, after reviewing an interim report by the unit, the President directed it to develop a legislative proposal as quickly as possible. The bill now sent to Congress is titled The Foreign Payments Disclosure Act.

Multilateral Trade Negotiations

This article is another in a series of progress reports on the multilateral trade negotiations, prepared by the Commerce Department Office of Int'l Trade Policy.

GENEVA

The **MTN Tariffs Group** received the European Community's proposed tariff reduction formula July 7 (the U.S. proposal was reported in this section April 12) and as expected it emphasized "harmonization," i.e., direct linkage of degree of reduction to current duty.

The reduction formula involves four steps, each bringing a reduction of the duty by its own percentage. For example, a 15 percent duty would be reduced by 15 percent to 12.75 percent, then by 12.75 percent to 11.12 percent, then by 11.12 percent to 9.88 percent, and finally by 9.88 percent to 8.90 percent. In this case the total reduction is 41 percent. In practice, fractions could be rounded off.

Reaction was mixed, and concentrated on product coverage and form and depth of cut. The Community's formula would not apply to agricultural products, the Community having long held that only the MTN Agriculture Group should negotiate duties on such products. The U.S., whose formula proposal would cover all products, vigorously objected to this exclusion and won some support.

On the form of the proposed reduction formula, some delegations supported the Comunity's sole reliance on the "harmonization" approach. Under the differing U.S. approach, the amount of duty reduction depends partly on the current duty level and partly on a fixed percentage cut. The U.S. pointed out that the Community formula, even before exceptions, would achieve a smaller cut than that of the Kennedy Round (about 37 percent after exceptions and only on industrial products). The reduction would be particularly small in the 5 to 15 percent range, where most tariff lines exist and where most trade occurs. There the U.S. formula would reduce the absolute difference far more, and actually achieve more harmonization than the Community proposal. And while the Community formula is theoretically aimed at high duties, the U.S. formula would also make a substantial cut (60 percent) there. More importantly, such high duties are few in the tariff profiles of industrialized nations, and nearly all of the Community's high duties are in the agricultural area, which would be untouched under the proposal.

The next meeting of this group will be scheduled to receive formula presentations from Japan and Switzerland.

The MTN Group on Nontariff Measures (NTMs) met July 20-21 to review the work of four of its subgroups: Subsidies and Countervailing Duties, Quantitative Restrictions and Import Licensing Procedures, Customs Matters, and Standards, and to discuss several proposals for advancing the work on nontariff measures.

A new Subgroup on Government Procurement is to hold its organizational meeting Oct 20. The OECD Secretariat has been asked to prepare a background note on its draft code on government purchasing, for use of the subgroup. Several developing countries expressed interest in the special implications for them of government purchasing practices.

The group noted its agreement in principle at the last meeting to establish notification procedures for NTMs not being dealt with multilaterally. However, a proposal to extend this agreement to set up consultation and reporting procedures, was not accepted at this meeting because of disagreement as to whether NTMs on agricultural products should be covered by this group or that on agriculture.

Discussed, but not acted on, were proposals to set up new subgroups on antidumping and on variable levies/minimum import prices. Discussion of the latter proposal sparked a lengthy debate on the agricultural products issue.

The MTN Subgroup on Subsidies and Countervailing Duties met July 13 for a brief discussion of the Secretariat's compilation of different countries' positions on various subsidy/countervailing issues. It was agreed that the checklist, while comprehensive, should be condensed.

A discussion ensued concerning the countervailing duty aspects of variable levies when such a levy is made on a commodity whose world market price is subsidized. As expected, certain European countries insisted that variable levies should be dealt with in the Agriculture Group.

The MTN Subgroup on Quantitative Restrictions (QRs) and Import Licensing Procedures heard July 12 that the U.S. plans to offer specific suggestions on negotiating procedures at the next (November) meeting. The U.S. again expressed disappointment with the current status of the consultations. It was stated that the United States believes negotiating procedures on QRs must be established now to complete the negotiations on time. Procedures suggested by the U.S. will probably include multilateral elements designed to relate work on QRs to other MTN areas that are affected by QRs, and bilateral elements intended to deal with particular QRs of export interest to subgroup participants.

The U.S. statement was generally supported by other delegations. However, the developing countries stressed their view that guidelines for differential treatment in favor of developing countries must be established before negotiations on QRs could begin.

With respect to import licensing procedures the United States team reiterated its view that automatic licensing systems, such as those used for statistical purposes, should be eliminated since statistical objectives can be accomplished by other means.

The MTN Subgroup on Customs Matters met July 5-8, and in discussing customs valuation, i.e. the calculation of merchandise value for the purpose of duty assessment, again focused on the main elements to be included in any new set of international rules, using a GATT Secretariat paper, which is a checklist of various countries' suggestions.

Some delegations pointed out that there is a close analogy between the assessment of value for duties and the basis on which some charges, such as variable levies, are calculated, and suggested that variable levies should therefore be included in valuation discussions. Other delegations expressed the view that variable levies should be discussed in the Agriculture Group, although they acknowledged that any new valuation rules would cover all products, both industrial and agricultural.

On the issue of import documentation requirements, discussion focused on the allegedly excessive requirements of certain countries, including the U.S. (Special Customs Invoice Form 5515). The United States and several other delegations again stressed that the harmonization of import documentation requirements cannot be accomplished through procedural changes alone since documentation requirements relate to other policy areas where structural reform is needed.

On the issue of consular formalities and fees, the United States, supported by the developed countries, proposed that plurilateral consultations should take place between countries maintaining such formalities and fees, and countries interested in their removal. However, the less developed countries, which as a group generally maintain consular formalities and fees, strongly opposed this proposal, saying that such formalities and fees do not hinder trade and are important to them. Next meeting: week of Oct. 25.

In a major initiative in the **MTN Safeguards Group**, the U.S. on July 19 presented its proposal for an improved multilateral safeguard system, which would set up guidelines for countries when increased imports causing injury to domestic producers make it necessary, as an

adjustment for both firms and workers, to establish temporary import restrictions. In accordance with the Trade Act of 1974, the U.S. proposal covers all forms of import restraint and provides for improved notification, consultation, monitoring and dispute settlement procedures. Countries would not be subject, under certain conditions, to retaliation or compensation obligations. Interests of the developing nations are noted. The proposal, generally welcomed as a negotiating framework, will be discussed at the next session Oct. 27-29. Proposals by developing countries, considered to be complementary to the U.S. proposal, will also be discussed.

At the **MTN Tropical Products Group** fifth meeting June 30, the LDCs expressed disappointment with offers of developed countries, and the U.S. reaffirmed its position that it expects contributions from countries benefiting from its M-F-N tariff concessions. Consultations on a bilateral and possibly plurilateral basis will continue until the next group meeting.

Imports Soar, Exports Advance Marginally During First Half 1976

Reflecting the expansion in the U.S. economy, imports posted a large advance in value in the first six months of this year. In contrast, the rate of increase in exports was marginal. As a result, the merchandise trade balance, after a record surplus in 1975, swung into deficit in January-June, the Commerce Department's International Trade Analysis Staff reports.

Exports were valued at a seasonally adjusted annual rate of $111.1 billion in the first six months, 6 percent above their level in the comparable period last year, but barely higher than in July-December. Imports climbed sharply to $113.2 billion, valued f.a.s. ($121.7 billion, c.i.f.), an increase of one-fifth over January-June 1975 and 16 percent above their level in the final half last year. The f.a.s. merchandise trade balance shifted to a deficit of $2.1 billion ($10.6 billion, c.i.f.) at a yearly rate in contrast to the $11 billion surplus recorded in 1975.

The near leveling of export growth in the first half reflected a pronounced, but temporary weakening of U.S. sales abroad in the early months of this year, as shipments declined from their relatively high levels in late 1975. This downturn probably reflected to some extent the lingering effects of the severe economic recession from which foreign countries had just begun to recover during last year's second half. Also influencing the export level significantly were large declines in a number of key products—aircraft and farm commodities, for example—which often fluctuate sharply over short periods. Since March, exports have been on an uptrend, suggesting that the recovery abroad, although not consistently buoyant so far, is beginning to stimulate demand for U.S. products. Nevertheless, in real terms, exports through June declined slightly from the second half, though there was a modest rise over the same 1975 period.

The sharp expansion in U.S. imports this year, following the large decline in the first half of 1975 and the modest pickup in the final six months, resulted from the strong recovery in the U.S. economy which began in mid-1975, generating an across-the-board expansion in demand for foreign products. The resumption of inventory building after the substantial draw down of stocks last year was apparently an important factor underlying the import rebound, which was particularly strong in industrial supplies and consumer goods. Import prices rose by 2½ percent in the first six months over the preceding half. Price increases accounted for only part of the rise in value, however, as imports also rose strongly in quantity terms.

In January-June, nonagricultural exports totaled $44.3 billion, a rise of 7 percent over their level in the comparable period last year. This was only 2 percent higher than the final half in value and actually lower in volume terms. The sluggishness in these shipments in part resulted from large declines in sales of various products which had climbed to high levels last year. These reductions offset some of the expansion in other exports which have risen in response to the quickening pace of economic recovery abroad.

Machinery exports, comprising about one-third of U.S. nonfarm shipments, advanced only moderately in contrast to the 20 percent or better annual increases of the three preceding years. Nonelectrical machinery sales were generally listless in the first half, with the exception of computers, farm tractors, and metalworking machinery. Deliveries of power-generating machinery, materials handling equipment, and non-agricultural tractors declined from last year's second half levels and were not much changed from their values in the first half. In contrast to nonelectrical machinery, sales of electrical types rose vigorously. There was a continuing recovery in shipments of electronic components; and sales of power machinery and telecommunications apparatus accelerated.

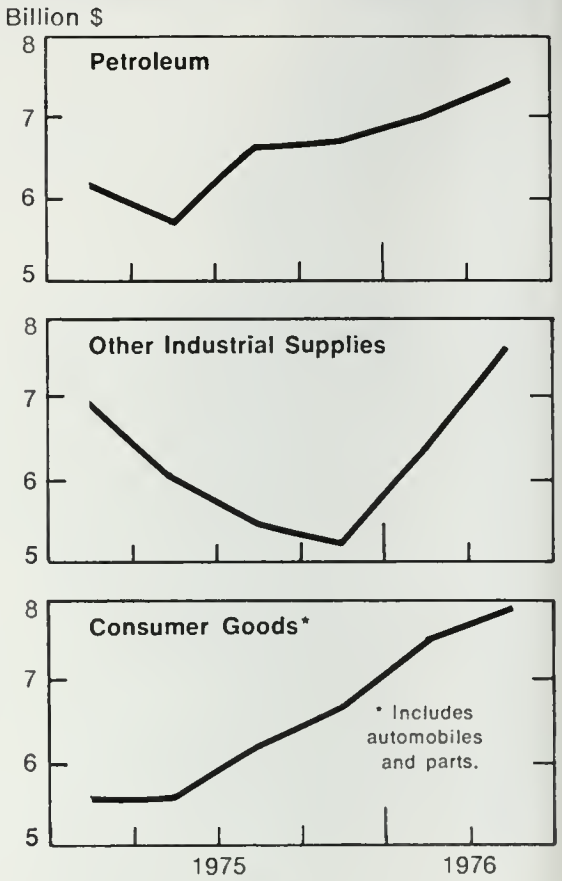
A mixed picture was displayed in exports of various types of transportation equipment. These shipments, which climbed strongly in value in the last half of 1975, dropped this year. The decline resulted from a sizable falloff in military aircraft deliveries and in truck sales. Military aircraft exports fell by nearly 50 percent. Sales of trucks also dropped sharply, as last year's especially large deliveries to Iran tapered off.

Civilian aircraft exports expanded following their slump in the second half, but they remained well below the levels in the comparable months of 1975. Automotive parts shipped to U.S. subsidiaries in Canada advanced as a result of the increase in car production there to meet the strong auto demand in this country. Passenger cars and trucks for Canadian markets, however, were lower than in the preceding half year.

Resumption of growth in foreign industrial production in last year's second half led to a rebound in U.S. exports of a number of industrial materials which has continued this year. Sales of organic chemicals and plastics posted particularly sharp increases. Paper, woodpulp, and lumber shipments also expanded further.

There were declines from the high 1975 levels for other materials. Exports of steel, which had dropped off in July-December, fell again. The reduction stemmed largely from a sharp fall in deliveries of tubes, pipes, and fittings to the oil-exporting LDCs from their exceptional levels last year. Similarly, coal exports edged down again after dropping

Selected Imports Advance as U.S. Economy Gains Momentum



Data are seasonally adjusted.

Some Key Manufactured Exports Rise, Others Decline

Millions of dollars, seasonally adjusted

	1975 Jan.-June	1975 July-Dec.	1976 Jan.-June
FIRST HALF '76 INCREASES			
Chemicals, total	4,402	4,307	4,840
Organic chemicals	1,138	1,240	1,434
Plastic materials and resins	558	620	829
Medicinals and pharmaceuticals	416	452	487
Machinery, total	13,846	14,631	15,220
Computers and parts	1,102	1,127	1,218
Electric power machinery	839	856	959
Telecommunications apparatus and parts	745	830	963
Tubes, transistors, and semiconductors	593	675	810
Measuring and controlling instruments	880	874	904
Paper and paperboard	515	619	696
Textile yarns and fabrics	764	861	964
Scientific instruments	907	887	951
FIRST HALF '76 DECLINES			
Transport equipment, total	7,936	9,343	8,599
Passenger cars to Canada	970	1,254	1,205
Trucks	793	936	734
*Military aircraft	559	779	431
Iron and steel	1,295	1,091	910
Nonferrous metals	676	636	556
Manufactured fertilizers	616	466	309
Power generating machinery	1,704	1,845	1,739
Materials handling equipment	888	955	892

* Not seasonally adjusted.

sharply in the preceding half. The downtrend in the value of coal shipments since early 1975 is partly explained by a decline in unit prices. Reduced Japanese demand as a result of high stocks and weak steel production was also a major factor.

Exports of agricultural products totaled $11.2 billion in January-June, 3 percent higher than in the comparable period last year but virtually unchanged from the second half value. The volume of farm exports increased over last year because of larger U.S. supplies and heavy demand in the USSR and Eastern Europe, but declining prices limited the growth in value. The quantity of corn shipments expanded by 40 percent over January-June 1975, but the value increase was only 20 percent. Similarly, soybean exports jumped by over one-half in volume and 19 percent in value.

Wheat sales declined in both quantity and value from the first six months of last year. They were sharply below the second half, when the total was substantially augmented by heavy shipments to the Soviet Union.

Industrial supplies lead import rise

Purchases of foreign industrial supplies other than oil rose rapidly in the first six months after a considerable decline in the preceding half. Inventory accumulation, following many months of liquidation, and the continued uptrend in U.S. industrial production were major factors in that growth. Steel arrivals, though still far below the January-June 1975 levels, expanded sharply from the second half because of increased demand for car production and other uses.

Nonferrous metal imports, particularly those of copper and aluminum, were higher than in either half of 1975. Lumber imports also were up sharply in value, responding to the pickup in construction activity here. Higher prices accounted for nearly half of the increase from January-June of last year. Newsprint entries from Canada recorded a large increase from the strike-depressed second half, but were still lower in value than in the last half of 1974 and first half of 1975.

The growth in receipts of petroleum and products slowed slightly this year. Moreover, the 9 percent rise in value over July-December to a total of $14.5 billion represented only a 3 percent increase in volume since prices continued to rise. Crude oil purchases were sharply higher in quantity because of greater demand and lower domestic production. Entries into the Virgin Islands of crude petroleum which is refined for shipment to the mainland, though not included in Census Bureau figures, totaled $1.1 billion in January-June. Natural gas receipts from Canada, limited in volume by that country's government, rose sharply because of higher prices.

Reflecting the upsurge in U.S. personal consumption expenditures for goods, imports of consumer products expanded strongly this year. Purchases of CB and other radios, TV's, and sound recorders, mainly imported from Japan, all showed sizable increases. Entries of clothing, footwear, watches, sporting goods, rubber goods, and gem diamond entries also grew in value. Motorcycle imports, in contrast, continued to fall from the high levels reached late in 1974.

Growth in imports of passenger cars from Canada, which was strong in the preceding half, moderated in January-June. Passenger cars from Japan, on the other hand, rose sharply this year over both halves of 1975, while auto imports from Germany were not significantly changed. Inventories, which were drawn down last year, grew substantially since sales of these foreign cars were sluggish.

Capital goods imports picked up considerably, after declining in 1975 in a pattern consistent with that of U.S. domestic investment expenditures. Machinery purchases accounted for about half of the increase from the previous six months. Truck imports, mainly from Canada and Japan, soared, while aircraft receipts dropped off slightly.

The value of food and beverage imports grew 9 percent in each of the last two half-year periods. Higher prices boosted the value of coffee imports by more than 30 percent, but the volume was unchanged from the second half. Tight world supplies, caused largely by weather damage to Brazilian trees, but also by difficulties in harvesting the Angolan crop, damage to the Guatemalan supply, and a dock strike in Colombia led to the steep rise in prices.

Area export increases modest

Exports to the developed countries picked up momentum in March but increased only modestly over 1975 in the full half year because shipments declined in the early months. Sales to Canada continued to grow, posting the largest rise of any of these nations. There was a slight expansion in shipments to Western Europe, but deliveries to Japan, while marginally above their depressed second half level, remained below the first six-month total. The oil-exporting LDCs' purchases edged downward from July-December levels following sharp rises for two years, but exports to the other LDCs declined compared to either half of 1975. Large grain sales to the USSR and Eastern Europe boosted exports to the communist countries.

The rise in imports in the first half was spread among all major U.S. trading partners. Arrivals from Japan paced the expansion with a rise of 40 percent over the previous six months. After declining in both halves of 1975, imports from Western Europe turned upward. Following their rebound in the final period of last year, receipts from the petroleum-exporting LDCs and the other developing countries continued to advance.

FROM THE SECRETARY—*First Presidential "E Star" Award conferred by Sec'y Richardson was to Gerson Int'l, Fort Wayne, Ind., export management firm active in automotive products and tools. President J. R. Gerson is at second right in group of Gerson officials. Photo at upper right depicts the Secretary's first "E" ceremony in his office, with Dr. Walter H. Robb, General Manager of General Electric's Medical Systems Div., Waukesha, Wis., recipient.*

INTO THE SUN—*"E" flag rises over First National Bank of Arizona, lifted by Rep. John Rhodes, bank pres. Robert Williams and Arizona Gov. Raul Castro.*

SPECIAL RECOGNITION—*Sen. Jacob Javits of New York presents "E Star" to officials of Brewster, Leeds & Co., New York exporter of edibles and a major recent donor to the Institute of International Business at Pace University. From left are Erwin R. Peters, B. Leon, Josef B. Ducat, Senator Javits and William S. Ducat.*

EFFORTFUL 'E's

Some of the 1976 winners of "E" and "E Star" (repeat) Awards for Export Excellence are shown in these photos, selected from many to represent the geographical and commercial range that is encompassed in the Presidential recognition. The common bond was success in building up the export total in the national trade balance.

IN THE NATION'S CAPITAL—*Group ceremony during World Trade Week saw Assistant Sec'y of Commerce Joseph E. Kasputys (left) honoring eight firms and their officers: Commercial Export Co. of Texas, Nacogdoches, Mrs. Audrey Quick and Robert J. Quick; Quality Boiler & Machine Works, Thibodaux, La., George H. Diedrich, Jr.; Modular Computer Systems, Ft. Lauderdale, Fla., Harlan Dybdahl; Pillar Corp., Milwaukee, Ernest C. Goggio; AMICO, N. Miami Beach, Fla., Adrian A. Walser, Glenn J. Diedrich; Penn Bruss & Copper, Erie, Pa., Joel G. Lehman; Sontrix, Inc., Boulder, Colo., Mrs. Waibel and Theodore A. Waibel, Jr.; Kahlsico Int'l, El Cajon, Calif., Michael B. Kahl. Success in exporting earned the awards.*

EDP USA '76, MILAN—*Customers at Trade Center get answers from exhibitors about their equipment. At left, booth of Texas Instruments; at right, of Tally Corp.*

EDP '76 IN MILAN TOPS EARLIER RECORDS; U.S. SALES SEEN CLIMBING

A total of $7.4 million in floor sales was the record-setting result of "EDP USA '76," a May exhibition of minicomputers, terminals, and peripherals at the Milan U.S. Trade Center.

The fifth in an annual EDP series at the Center, and the only annual EDP show in southern Europe, the exhibition has come to be described by suppliers and users alike as "a show not to be missed." The '76 event drew buying missions from several neighboring countries—for example, a group of 48 business and government officials from Greece. Fifty-six participants exhibited for 91 companies—another record for the Center. They anticipate some $32.2 million worth of business during the next year, stemming from contacts during the event.

Despite pre-election uncertainties, the weakness of the lira, and recently announced Italian government import restrictions, 2,800 trade visitors—the most ever for an EDP show—attended. Such interest by potential customers confirms that Italian industries, plagued by high labor costs, are increasingly aware of the computer's utility, efficiency, and ability, and that minicomputers are being sought by virtually all industries—especially medium-sized ones that have been less affected by the recession than Italy's giants.

Export growth at 20 percent

U.S. exports of computers and related equipment to Italy are expected to increase by as much as 20 percent annually in real terms through 1977. Of the country's total EDP market of $450 million in 1974, imports accounted for about $250 million.

A bicentennial symposium, "Two Hundred Years of Science and Technology for the Advancement of Mankind," was held during the exhibition. Organized with the collaboration of Italy's Federation of Scientific and Technical Associations, the symposium had among its speakers Mario Pedini, Italian Minister of Research and Technology and Ruth Davis, Director of the Institute for Computer Sciences and Technology, U.S. National Bureau of Standards.

U.S. Exhibitors Benefit From Improvement In Iran Furniture Market

That the market for furniture in Iran has improved considerably in the past year was amply demonstrated by the success of a recent exhibition at the Tehran U.S. Trade Center.

The impetus for the American Furniture Exhibition, the first consumer goods show at the Tehran Center, was the removal a year ago by the Iranian Government of the 200 percent commercial benefit tax on imported furniture. Although this left a 100 percent customs duty (c.i.f.), and the resulting price for imported furniture is still high, the reduction was significant.

As earlier market research had suggested, high quality, medium-priced hardwood furniture, whether office or residential, enjoyed the best results. Highly priced, upholstered, "overstuffed" furniture, has a very limited market in Iran. Metal and vinyl dinette sets, moderately priced chrome-leather-vinyl contemporary furniture, outdoor furniture, high-quality residential table lamps, and reproduction pieces are among the items offering the best potential.

Prices for such products generally are competitive with those of third countries, the U.S. Embassy reports. The position of U.S. products could be enhanced, however, by reducing landed costs—most effectively by shipping on a knocked-down basis with assembly in Iran. For quality received, Iranian-produced furniture is likely to remain expensive for some time. Imported furniture from all current sources will continue to enjoy high market acceptance, particularly if the import duties remain constant or decrease. Over time, the Iranian industry will be upgraded, but the process is likely to take at least six to eight years.

Twelve exhibitors, all new to the market, participated in the Center show. Floor sales totaled $149,000; 12-month projections, $7.2 million.

FABRIC TRENDS—*At Tehran exhibition, William Jackson (center) shows fabric samples from Hayes Furniture Co. to Iranian visitor (left) and interpreter.*

SEEING CAT PERFORM—*Governor Hsieh Tung-min (fourth from right) of the Taiwan Provincial Government—at Taipei U.S. Trade Center's offsite exhibition, Construction USA—watches maneuverability of Caterpillar track loader.*

EXPANDING CONSTRUCTION INDUSTRY IN TAIWAN BOON TO U.S. EXHIBITORS

The Republic of China's construction industry has been developing rapidly over the past five years. Ten major infrastructure projects begun in 1973-74 soon will be supplemented with construction of light and heavy manufacturing facilities, new office and apartment buildings, low-cost housing units, cross-island highways, and feeder roads.

Participants in CONSTRUCTION USA, a recent exhibition at the Taipei U.S. Trade Center, benefited on the spot from these developments. Floor sales reported by the 36 exhibitors reached $1.7 million and 12-month projections, $21.9 million. Three representatives were appointed; several agreements are under negotiation. As the Taiwan Government encourages imports of technology-intensive equipment from the United States, American companies should enjoy substantial sales during the next five years, the U.S. Embassy reports.

The exhibition offered an opportunity for government officials, engineers, governmental and private contractors, architects, engineering and construction consultants, plywood manufacturers, and businessmen from the furniture and wood handicraft industries to become further acquainted with the latest U.S. developments.

Although regular buyers of heavy construction equipment in Taiwan are limited to a few government and quasi-government operated construction agencies, several private construction and engineering firms demonstrated strong interest in this equipment during the exhibition. Portable electric drills, grinders, air compressors, certain hydraulic tools, concrete curbing machines, roof coatings, sanding belts, primers and compounds also were among items of major interest.

End users consider the price of U.S.-manufactured building and construction equipment to be higher than that of similar local and third-country products. For instance, U.S. bulldozers are generally priced 20 percent higher than those manufactured locally, and hydraulic rough terrain cranes are 30 percent higher.

However, U.S. firms manufacture a significantly wider variety of products than do local and third country manufacturers. Small construction equipment is likely to have the best sales potential. For these items, buyers will opt for the higher priced U.S. equipment because they believe that their quality and durability are superior to those of the cheaper, local or third country products.

U.S. construction equipment also enjoys a favorable competitive technological advantage. For the past two years, U.S. suppliers have had the largest share of Taiwan's import market for excavating, leveling, and boring machinery.

U.S. manufacturers will improve their market penetration if they provide better after-sales service. Japanese firms offering favorable credit arrangements and adequate after-sales services penetrate the market with little difficulty.

Venezuelan Construction Boom Enhances Sales At U.S. Equipment Show

The Venezuelan construction industry, with an 18 percent annual growth rate for 1974-75, is one of the fastest growing elements of the country's economy. Imported equipment should surpass $360 million this year and is forecast at $716 million by 1980. This dynamic market set the stage for the brisk business activity that marked a recent U.S. solo exhibition of materials handling and construction equipment in Caracas.

The 82 exhibitors who participated in CONSTRU-QUIPOS '76 recorded off-the-floor sales of $8,897,000 and projected more than $49.5 million in business during the coming year. Of this amount, $21.2 million was projected by the 28 exhibiting firms that were new to the Venezuelan market. Many of these new-to-market firms also used the event to sign sales agents and distributors for their products.

Cranes, personnel/material hoists, excavators, fork-lifts, road wideners and pavers, masonry saws, air compressors, concrete pumps and finishers, compacting equipment, front-end loaders, and off-highway trucks were among the many products displayed in this complete spectrum of equipment for the industry.

Specific products which drew top attention and sold well included machinery to fabricate concrete and steel pipes, earthmoving equipment, portable power tools, pre-stressed concrete forming decks and systems, chemicals for treating and sealing concrete, paving equipment and pre-fabricated buildings.

"Very successful for us" was the comment of Alejandro Siches, Venezuelan distributor for the Hyster Co., which sold $500,000 at the exhibition and expects $4.5 million in business during the coming year. Jack Moore Associates of Holliston, Mass., appointed a distributor. The firm also realized immediate sales of $500,000 and anticipates $1.25 million in additional sales in the next 12 months.

Venezuelan investment in new building is expected to advance by 14 percent annually through 1980. Major building projects include enlargement and improvement of the ports of La Guaira, Puerto Cabello and Maracaibo; a low-cost housing project budgeted for $1.6 billion between 1975 and 1979; new terminal and cargo facilities for the International Airport at Maiquetia; the Caracas Metro subway system; and expansion of roads and highways. U.S. manufacturers maintain a 60 percent share of the market for imported building products and construction equipment, and the outlook for continued sales of U.S. construction equipment to Venezuela is bright.

INTERNATIONAL FIRMS ATTRACTED BY QATAR'S PROJECT OPPORTUNITIES

Fueled by substantial oil revenues, the economy of Qatar is developing at a startling pace. Oil income is expected to reach $2 billion in 1976, and a major portion will be spent on industrial and infrastructure development. Qatar is placing increasing emphasis on diversification of its economy and the resulting project opportunities have attracted a large number of international firms, according to the U.S. Embassy in Doha.

The petroleum sector will continue to dominate the economy for the foreseeable future. At present levels of production, reserves are expected to last for 25 years, and further exploration is being conducted. Qatar also has enormous natural gas fields which could be produced for several hundred years without exhausting reserves. Most major industrial projects planned or under construction are related to the petroleum sector, deriving either fuel or feedstock from Qatar's reserves. In addition to industrial projects, Qatar will spend large amounts on housing, communications, health facilities and other infrastructure developments.

Qatar has adopted a relatively conservative policy toward oil production and has attempted to control the pace of development. Almost $1 billion is budgeted for capital expenses in 1976 and there are considerable opportunities for international firms in almost every area of the economy. The absence of a technically or administratively trained indigenous population has resulted in a heavy reliance on foreign labor and skills, and lack of an established infrastructure or industrial base has created some absorptive problems and bottlenecks.

The United States has not been a traditional supplier of Qatar with the exception of oilfield supplies and equipment. Thus far, American firms have not participated to a significant extent in the booming economic development of the country, especially in the major projects field. In the past year, however, American architects, engineers and contractors have shown an expanding interest in the numerous opportunities in Qatar.

U.S. exports to Qatar have increased from $16 million in 1972 to over $50 million in 1975 when they accounted for 12.5 percent of Qatar's total imports, the highest percentage ever. In addition to supplies for the oil industry, motor vehicles have been one of the most important American exports to Qatar. There appear to be rapidly expanding opportunities for the sale of construction equipment, building materials, housewares and household furnishings and materials handling equipment.

Thus far, participation of American firms in major project activity has been limited to the design and construction of a 7,000 barrel-per-day refinery and a major subcontract for the steel mill. Several American architects and planners have recently received commissions for the design of government-financed projects, including a large hotel and a sports center. American firms have begun to compete more actively for important contracts such as the new NGL plant, a second refinery, and several large construction projects. Additional future opportunities for contractors will include housing projects, hotel and university construction and processing plants for the gas industry. A broader listing of current and proposed major projects is available from the Department of Commerce or the U.S. Embassy in Doha.

In general, both the government and private sectors are favorably disposed toward American firms. American products and services enjoy a reputation for quality and reliability, and there is substantial local interest in expanding trade relations with the United States. However, the government is very conscious of price in evaluating bids, and American offers have been considerably higher than those of European or Japanese competitors. These higher estimates are often the result of unfamiliarity with local costs and conditions. Also, several recent bids by American companies have been rejected because they did not comply with the terms of the tender, generally because of the addition of escalation clauses which are not acceptable to the Government of Qatar.

Thus, while there are a number of major opportunities for American firms in Qatar, successful competition requires acceptance of the local ground rules and a thorough knowledge of the area which can be gained only through repeated visits.

The Government of Qatar actively encourages foreign investment, especially for industrial projects. There is a legal requirement that all local companies have 51 percent Qatari ownership, although exemptions can be obtained by special decree. Equipment and material imported for use in new industries are exempted from duties, and industrial ventures in Qatar are entitled to a five-year tax holiday that can be renewed. There are no personal income or municipal taxes.

The Government of Qatar may also assist foreign investment in industry through capital participation, long-term, interest-free loans or by providing free land The government is especially interested in furthering the development of petrochemical, food processing and plastics industries. There may also be excellent opportunities for international firms for the manufacture of prefabricated housing.

Trinidad And Tobago Gives More Attention To Imports As Oil Revenue Flows In

Thanks to oil revenue, the economy of Trinidad and Tobago is strong, even though output in many sectors was disappointing in 1975. Economic performance in 1976 has been much better, and at mid-year refinery throughput was back up, sugar production was near traditional levels, and output had increased in most other manufacturing and agricultural sectors. Production of crude oil has steadily increased since 1972, and now has reached about 225,000 barrels per day, adds the U.S. Embassy in Port-of-Spain.

On May 28 the Trinidad and Tobago dollar's traditional link with sterling was severed, and the currency is now tied to the U.S. dollar at a rate of TT$2.40 = US$1.00, an effective devaluation of 20 percent from the historical exchange rate. The new link with the U.S. dollar will provide a welcome element of stability for firms trading with the U.S. and other non-sterling areas.

Although firm data are lacking, the inflation rate declined somewhat in 1975 and should drop further in 1976, partly due to the government's success in keeping Trinidad's domestic economy insulated from the expansionary effect of the tremendous surge in oil revenue.

U.S. exports to Trinidad and Tobago increased by over 60 percent in both 1974 and 1975, years in which Trinidad's total (non-oil) imports grew by 33 and 40 percent, respectively. This means that the U.S. share of Trinidad's import market has soared to 44 percent from the 33 percent share averaged in recent years. Due to a 1975 strike in the petroleum refining industry, Trinidad's total imports that year dropped in value by $350 million, despite the fact that non-oil imports increased by about $210 million. Total exports registered a similar decline of some $250 million, yet Trinidad's non-oil exports grew about $150 million, reflecting increased indigenous oil production. Higher oil prices thus have reversed Trinidad's historically un-

UNDER CONSTRUCTION IN TRINIDAD—*Fluor Engineers and Constructors, Inc., Los Angeles, is building this ammonia fertilizer factory for the Trinidad Nitrogen Co. Ltd., a joint venture between the Government of Trinidad and Tobago and W. R. Grace Inc. Here, the east side of the pipe rack looking through the compressor house.*

favorable balance of trade, and have also spurred a tremendous demand for imported goods.

Trinidad is embarking upon a massive $3-$5 billion industrialization program, aimed at employing its oil revenue and natural resources to create employment, to reduce the country's dependence upon the petroleum sector through diversification, and to convert raw materials into export products with a high value-added content. A second ammonia fertilizer plant (a joint venture with W. R. Grace) is nearly completed, and plans are drawn for a direct reduction process steel plant and rolling mill. Other top-priority projects include a new cement plant, a polyester fiber factory, another fertilizer plant and a furfural factory. Implementation of these plans will mean vast additional expenditure on electric power generation, port and harbor construction, and water resources development. Details about these projects are available from the U.S. Department of Commerce.

The Trinidad Government is actively seeking foreign participation in its industrial development program. Private (and public) foreign companies are welcome as equity partners, engineering and design consultants, process and equipment suppliers, or as marketing partners. The government insists, however, on "meaningful local participation" in all major new investments, which in practice means that at least 51 percent of equity ownership must be in local hands. As a result, most of the planned major industrial projects are being drawn up to include the government as a joint-venture partner. In all of these enterprises, the government emphasizes maximum use of indigenous labor, and strictly enforces work permit regulations designed to minimize hiring of expatriates.

At the same time that foreign partners are being sought on a joint-venture basis, the government is also seeking to reduce the influence of wholly foreign-owned firms operating in Trinidad. Companies in some sectors (such as banking and insurance) are urged to incorporate locally and sell a majority of their shares to local residents. Other companies have been purchased outright, such as Shell's marketing, producing and refining properties in 1974, and a small, British-owned sugar company in 1976. In view of the government's acquisition policy, it is worth noting that Trinidad has pursued a careful and moderate policy which has not resulted in expropriations or unresolved nationalizations of foreign firms.

The preferential tariff system once accorded suppliers in British Commonwealth nations was abolished Jan. 1, opening up an entire range of manufactured products and consumer items to fair competition from U.S. suppliers. The only remaining restrictive trade barriers are those imposed by the Caribbean Community (CARICOM), which is a small regional integration movement composed of the English-speaking nations and territories in the Caribbean basin. The Caribbean Common Market is typical of many regional economic integration efforts, and offers businesses that establish plants there access to a market of 5 million as well as the usual type of producer incentives such as tariff protection, tax holidays, and largely duty-free trade among its members. In Trinidad's case, protection is extended to local processing, packaging, light manufacturing and assembly industries by means of a "negative list" of goods for which a prior license is required.

Now that the value of the TT$ has been pegged to the US$, local importers can be confident about pricing when they place orders with American suppliers. Entire plants will be purchased for Trinidad's proposed industrial projects, affording excellent opportunities for U.S. engineering and consulting firms, and exporters of process technology, capital equipment and related infrastructure items. Trinidad and Tobago should also continue to be a good market for U.S. agricultural exports ($52 million in 1975), primarily in the form of raw or bulk commodities for further processing or packaging.

As oil revenue flows in, Trinidad and Tobago can be expected to devote more attention (and an increasing share of foreign exchange receipts) to improving the quality of life for all its citizens. These programs will afford good opportunities for exports of lines such as advanced health care delivery systems, classroom and laboratory furniture and equipment, industrial safety and pollution control equipment, water treatment and sewage processing plants, and similar items.

South Africa Now Requires 20 Percent Import Deposit

Effective Aug. 2, imports into South Africa are subject at the time of entry to a 20 percent deposit based on the f.o.b. value of the shipment. The deposit, lodged with the Controller of Customs and Excise, is to be returned without interest at the end of a period not to exceed six months.

Certain selected categories of goods are excepted from the deposit requirement. These are: mineral fuels, oils and products of their distillation, bituminous substances, and mineral waxes; goods imported exclusively for re-export in their original form to countries outside the Southern African Customs Union; goods valued at less than $115; goods valued at over $11,500 and which have been declared by the Secretary for Industries as being essential capital goods or equipment required in connection with a development project for purposes other than replacement; State importations; relief and charitable goods; goods for diplomatic missions; immigrant's goods; re-imported goods; and goods temporarily imported for specific purposes.

Nigerian Rules Are Clarified

Commerce America has received clarification on two details regarding new Nigerian regulations governing shipping documents. Relevant shipping documents should be forwarded to the Central Bank by the bank in Nigeria within 21 days of receipt of the cable from the correspondent bank—not within two days as reported in the July 5 issue. Also, the directions available from the Nigerian Port Authority or Nigerian Airways contain a copy of the clearance certificate which must be obtained in addition to the bill of lading and other relevant documents, by all ships and airline owners or agents carrying imported cargo into Nigeria.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

In-Store Promotion. Jenners, Edinburgh. Sept. 27-Oct. 9. Jenners, the prestige retail outlet of Edinburgh, Scotland, will feature a U.S. Bicentennial promotion for two weeks. Product categories of interest include all types of apparel, fabrics, linens, housewares and furniture. Store contact: Mr. J. McDermott, Jenners, 48 Princes St., Edinburgh EH2 2YJ. U.S. buying office: Affiliated Traders Ltd., Attn. Miss Acta Salba, 220 Fifth Ave., New York, N.Y. 10001. Mollie Cleveland, 202-377-4705.

Machine Tool Catalog Exhibit. U.S. Trade Centers, Singapore, Taipei, Sydney. October. Added feature is a sound and color video tape recording. Officials of key metalworking and finishing firms will be invited to view film and catalogs and talk to a representative of the National Machine Tool Builders' Assn., which is assisting with show. Frederic J. Gaynor, 202-377-3846.

In-Store Promotion. Denby's, U.K. October. Denby Furniture Ltd. is planning a promotion of U.S. furniture and home furnishing items during October at major House of Fraser outlets in the U.K., including Harrods and John Lewis stores in London. Contact Robert B. White, International Marketing Director, Denby's, Derby DE5-2NX, U.K., or Charles Johnson, 202-377-4705.

Port Development Technical Sales Seminar. Saudi Arabia, Egypt and Morocco. Oct. 3-15. Areas of specific interest include port consulting and engineering, deck and engine room machinery, materials handling and cargo control equipment, ship service and repair systems, shipyard productivity and improvement systems, anti-corrosion materials, anti-pollution equipment and communications and control equipment. E. Lee Carteron, 202-377-2973/4.

Building and Construction Equipment and Supplies Exhibition. U.S. Trade Center, Paris. Oct. 4-7. Excluding common stone and wood, the market for these products in 1975 was $15 billion and is expected to grow to $19 billion by 1980. For further information contact Robert B. Wallace, 202-377-4976.

Electronic Components Catalog Exhibit. Barcelona. Oct. 9-17. To be held in conjunction with the Image, Sound and Electronic Trade Fair (Sonimag), a major annual event in Spain. In 1975, U.S. exports of electronic components to Spain amounted to approximately $3 million. The Spanish Government has ambitious plans for expanding the electronic/telecommunications industries. In 1974, it decreed preferential interest to the electronics industry. Robert E. Peterson, 202-377-3973.

Business Systems Exhibition. Tehran Trade Center. Oct. 10-14. Iran is the fastest growing market for U.S. exports in the world. Over the last two years, our exports to Iran quadrupled to $3.2 billion. Much of Iran's approximate $20 billion oil income goes to industrial and business growth. This force-feeding of economic growth offers excellent sales opportunities for American suppliers of computers and business equipment. Within three years the Iranian import market for business systems will amount to $63.5 million. Don Ryan, 202-377-2952.

In-Store Promotion. Shalom Stores Ltd., Tel Aviv. Oct. 10-31. Shalom is planning a major Bicentennial promotion of U.S. consumer products. U.S. buying office is Marcent Int'l. Inc., Attn. Kurt J. Heilbronner, V.P., 200 Park Ave., Suite 5305, New York, N.Y. 10017. Mollie Cleveland, 202-377-4705.

Micro and Minicomputer Equipment Exhibition. U.S. Trade Center, Frankfurt. Oct. 12-15. Germany is the world's third largest user of computers and related equipment. Current research points to an immediate and very significant market in Germany for micro, mini, small and medium computers, peripheral equipment and software. Major users include banks, financial and insurance institutions and transportation and communications industry sectors. The use of computers and related equipment in Germany is more extensive and sophisticated than in any other country except the U.S. The value of Germany's EDP installations is estimated at $5.7 billion. An expected 16 percent average annual growth rate points to a $2.6 billion total market in 1977. Dwight Umstead, 202-377-4414.

Chemical Industry Equipment Exhibition. U.S. Trade Center, Milan. Oct. 12-16. Italy's chemical industry is the fourth largest in Europe, with production of primary chemicals totaling $12.7 billion in 1974. Estimates through 1990 indicate that the chemical sector will enjoy growth rates of around 20 percent annually over the total period. U.S. technology in this field is highly regarded. Held concurrently with the MAC International Chemical Exhibition at the same location, it will provide U.S. firms access to a number of European and Mediterranean markets. Sam Spaulding, 202-377-4508.

Energy Systems Technical Sales Seminar. Madrid, Barcelona, Belgrade and Zagreb. Oct. 17-30. Rapidly increasing power needs requiring the development of hydroelectric, thermoelectric and/or nuclear power, plus improving economic conditions, provide significant opportunities for U.S. technology and equipment sales in Spain and Yugoslavia. Sales of energy equipment and systems will grow in accordance with Spain's Energy Plan, which calls for doubling energy production in the next decade. The Yugoslav Government has set a goal of expanding hydroelectric plants from 4,600 MW to 9,400 MW and thermoelectric plants from 4,000 MW in 1975 to 10,500 MW in 1980. Jonnell Jacobson, 202-377-4918.

CERAMICS '76—Seminar and Exhibition of U.S. Ceramics Production Equipment, Accessories and Materials. U.S. Trade Center, Mexico City. Oct. 18-20. U.S. export sales of ceramics production equipment are forecasted to increase in real terms 11 percent yearly until 1978 and 16 percent yearly from 1978 to 1980, in line with predicted movements in construction. William Brandt, representing the American Ceramics Society, will organize and conduct this seminar, scheduled just before the Southwest Section of the American Ceramic Society's Fall meeting in Monterrey (Oct. 20-22). Exhibitors can conveniently attend both programs. For a copy of the market research report which includes a list of high sales potential products as well as further information on this exciting event, contact Anita F. Brownstein, 202-377-3213. You may also contact Brandt directly at 713-785-3878.

Electronic Components Catalog Exhibit. Amsterdam. Oct. 18-22. To be held at the International Industrial Electronics Trade Fair (FIAREX), the key Dutch trade event focusing on this theme. The Netherlands is an important market for sophisticated electronics, as it is a major producer of telecommunications equipment, computers, electronically controlled industrial equipment, instruments, and consumer products. Agents and distributors of electronic components are eager to locate new suppliers or to learn about the newest U.S. products. Robert E. Peterson, 202-377-3973.

Mineral Production & Processing Technical Sales Seminar. Jakarta and Kuala Lumpur. Oct. 18-28. Foreign investment contracts approved since 1967 valued at well over $500 million are still being implemented, and new contracts are now being generated as private participation interests are encouraged by the Indonesian Government in further development of the country's large mineral resources. Malaysia's acknowledged world leadership in the production of tin is

realized in the nearly $600 million in annual exports: new tin production investment is growing as private participation contracts become more widely used in tin as well as in copper and coal extraction. Seminars conducted in these two countries will feature presentations from seven American companies on the fundamentals of modern extraction and processing of non-oil minerals of the area. Sales appointments with key buying officials will supplement the technical seminar sessions in each city. Contact W. Brad Tyrrell, 202-377-4304.

Technical Sales Seminar in Instrumentation. New Delhi. November. The Indian Government has accorded priority to expansion in the heavy industrial sectors, particularly petroleum exploration, production and refining; fertilizer production; and petrochemicals. In addition, there is increasing emphasis on scientific research and development and providing modern medical services on a mass basis. The demand is for sophisticated instrumentation required to fill technological gaps and achieve economic objectives. Foreign exchange is readily available for this purpose. Will be held in conjunction with the first World Instrumentation Symposium and International Trade Exposition (WISITEX) which opens in New Delhi, Nov. 22. William J. Bushwaller, 202-377-4511.

Agribusiness Technical Sales Seminar, Lagos, Khartoum, Libreville. Nov. 2-19. Changing economic conditions, new sources of investment capital, a need to remedy food shortages and a plan to increase commodity exports in Nigeria, Gabon and the Sudan call for extensive development in the agricultural sector. Projects in each country include livestock and dairy production, land clearing, irrigation, harvesting and processing. While petroleum is Nigeria's principal foreign exchange earner, agriculture and animal husbandry are the mainstay of the domestic economy. The Nigerian Third National Development Plan (1975-1980) provides for a $3.6 billion investment in the agricultural sector, with emphasis on accelerated food production. The Government of Gabon announced a realignment of spending priorities, supported by an anticipated increase in oil revenues, allocating $350 million for agricultural projects over the next five years. The Sudan has been designated as the future principal regional food supplier and therefore is recipient of substantial funding from Arab oil-producing countries. In addition, the World Bank has heavy interest in Sudanese agribusiness projects. Contact Jonnell Jacobson, 202-377-4918.

Technical Seminar on Machine Tools. Czechoslovakia, Hungary and Bulgaria. Nov. 6-20. These countries offer growing markets for U.S. manufacturers of machine tools. Company participants will present technical papers in each country to a highly select audience of buyers, technicians, and end-users. Contact Judith Robinson, 202-377-3376.

Computers and Peripheral Equipment Exhn. and Seminar, U.S. Trade Center, Sydney. Nov. 8-12. The Australian computer/peripheral market is currently valued at over $211 million. The U.S. is Australia's leading supplier with a market share of about 50 percent. However, competition is intense with strong competition coming from the U.K., West Germany and Japan. Total computer consumption in New Zealand totaled $14 million in 1974; the U.S. accounted for $4.2 million. An annual growth rate of 10-15 percent is predicted. Call Don Mathes, 202-377-4957.

Communications Systems & Equipment Exhn. U.S. Trade Center, Taipei. Nov. 15-19. Taiwan, a booming market primarily oriented to U.S. sources for its substantial imports of advanced hi-technology communications gear, has embarked on a massive modernization and expansion program. Heavy growth is seen from 1977-78, especially in telephone equipment needs. This event will feature data communications with latest dial-up systems, C.C.T.V., microwave, transceivers, and monitoring & testing gear. High sales prospects are further supported by a U.S.-source Eximbank loan of $27 million for PABX boards, coax cables, microwave, toll switching, traffic counting and engineering/consulting services. Dave Horridge, 202-377-2798.

Food Processing and Packaging Equipment Specialized Trade Mission. Kenya, Cameroon and Ivory Coast. Nov. 15-30. These countries are among the many developing nations which are paying increasing attention to the problem of food supply and the development of agriculture-based export industries. The mission will visit Nairobi, Kenya; Yaounde and Douala, Cameroon; and Abidjan, Ivory Coast. Participation is open to U.S. suppliers of machinery, equipment and services for grain milling, sugar processing, dairy processing, butchering and meat and poultry processing, fish catching and processing, baking, ice-cream and candy making, edible oil processing, freeze drying, dehydration, refrigeration and packaging. For information call Bertie Renborg, 202-377-3741.

Engineering Design Components. U.S. Trade Center, Milan. Nov. 23-27. Components, materials and technology in the machinery, automotive, aerospace, and other equipment and electro-mechanical industries will be featured. Transmission components, hydraulic and pneumatic components, electrical and electronic controls, special materials, shapes and forms, joining systems and components are included. U.S. products have tremendous potential in this market. Runs concurrently with BIAS, international automation engineering exhibition, at the same fairgrounds. J. Michael Springmann, 202-377-4975.

HEVAC-76 International Trade Fair. Tehran. Nov. 24-30. The United States is still Iran's No. 1 supplier, claiming better than a 20 percent share of a market the U.S. Department of Commerce predicts will go to $40 billion by 1980. The rapid increase in population, the jump in national income as a result of oil price increases and a dramatic rise in the standard of living within the past decade have considerably intensified construction requirements in Iran, particularly in housing. The market for HEVAC equipment has grown from $150 million in 1975 to an estimated $340 million in 1976. According to the Fifth Development Plan (1973-1978), approximately $6 billion is targeted to improve the housing situation. In order not to let these orders go by default to foreign competition, the U.S. Department of Commerce is planning this showcase for heating, ventilation, air-conditioning, plumbing, refrigeration and sanitation equipment, architects/engineers and contractors. Call Franc Manzolillo, 202-377-2991.

Electronica 76. Munich. Nov. 25-Dec. 1. Germany's total consumption of electronic components is predicted to exceed $1.7 billion in 1977, while the market for electronic production and test equipment is expected to reach $343 million. In both categories, imports account for more than 40 percent of the entire market and the United States is the country's leading supplier with a share of about 28 percent. Best sales opportunities exist for U.S. exporters of color TV tubes, capacitors, resistors, integrated circuits, diodes, transistors, production and test equipment, and materials. Best market prospects are in computers, measuring and testing instruments, industrial equipment, and medical electronic equipment. Don C. Schmadel, 202-377-2177.

Telecommunications Equipment & Systems Exhibit (JEEP). Paris. Nov. 29-Dec. 2. Significant opportunities for exports should arise in the entire telecommunications market as a direct result of the French Government's recently announced massive program to increase the telephone system's capacity some 300 percent during the period 1976-1980; about $10 billion will be expended on equipment purchases. Some 6-8 new-to-market firms will be eligible for this event. Contact Ned Krause, 202-377-5381.

Analytical Instruments for Science and Industry Exhibition. U.S. Trade Center, London. Nov. 29-Dec. 3. The British market for analytical instruments for science and industry was valued at $85 million in 1974. Expanding technology, increased investments by industrial and government laboratories, and a general economic recovery should push the market to $100 million in 1979. Imports from the United States, which account for more than 25 percent of the total market, are expected to jump from $22 million in 1974 to $32 million in 1979. U.S. firms are the leading import suppliers of four categories of products--automatic analyzers, gas chromatographs, oscilloscopes, and atomic absorption spectrophotometers --and have obtained a large share of the British market through their technological superiority and effective marketing practices. Robert L. Bradshaw, 202-377-4461.

Metalworking, Finishing Equipment and Machine Tools Product Literature Display. Johannesburg and Cape Town. Nov. 29-Dec. 8. In 1972, South Africa's apparent consumption of metalworking, finishing equipment and machine tools registered $68.8 million; for January-September 1975 this figure rose to $161.1 million. Local production accounts for only about 6 to 7 percent of these market figures. Over the last few years, there has been substantial growth in the local industries that rely on the machine tool industry, partly because of the need to upgrade quality as a result of the increasingly stringent local programs supporting South African industry. This product literature display should provide an excellent opportunity to attract the attention of South Africa to the latest advances in technology in U.S. products. Robert E. Peterson, 202-377-3973.

Pulp, Paper and Converting Machinery and Equipment Trade Mission to Brazil. Dec. 1-10. The Brazilian pulp and paper industry has grown rapidly over the last ten years in order to satisfy an exploding domestic demand. Production doubled in the 1967-1973 period alone. Foreign investors have begun showing interest in Brazil as a source of pulp and paper for the world market over the medium and long-term. To date, exports have not been

significant, and imports have grown substantially. However, ambitious plans have been announced to make Brazil both self-sufficient in paper and a major exporter of pulp (two million tons) by 1980. Investments of $2.75 billion will be required for achievement of the 1980 goals. Forty percent of this, or $1.1 billion, has yet to be committed, according to government figures. Longer-term goals (over the next 20 years) see investment of $17 billion in the pulp and paper industry and export earnings of $51 billion. Call William J. Bushwaller, 202-377-4511.

U.S. Exhibition in Second Dakar International Fair. Dec. 3-12. In 1974 this exposition attracted 500,000 visitors with 670 firms from 44 countries participating. Senegalese development expenditures of over $500 million a year, rising interest in U.S. sources of supply, an improved U.S. competitive position due to the recent ending of EEC reverse preferences, and extensive regional sales prospects, provide enterprising American firms an excellent opportunity for market penetration and development. Commerce's pavilion will accomodate 20 U.S. manufacturers of diverse equipment. Philip Michelini, 202-377-5148.

Catalog Exhibitions on Do-It-Yourself Equipment and Products. Brussels, Dec. 4-12, and Utrecht, Jan. 24-30. These shows will be organized by the U.S. Department of Commerce at two major European exhibitions, "Hobby 76" at the Rogier Center in Brussels and "Karwei 77" at the Royal Netherlands Industries Fairgrounds in Utrecht. The growing cost of services related to home rehabilitation, limited expansion of new construction, inflation and tight money are encouraging growth in the do-it-yourself field in both Belgium and the Netherlands. These trends also have made U.S. products more price competitive in Europe and have created an excellent marketing opportunity for those manufacturers selling do-it-yourself equipment or products. Robert Peterson, 202-377-3973.

Hospital and Medical Equipment and Supplies Catalog Exhibit. Port of Spain, Trinidad and Santo Domingo, Dominican Republic. Dec. 6-10. Both countries are embarking and updating programs in the field of health care. Trinidad, entirely dependent on foreign suppliers for its hospital and medical equipment and supplies, has obtained sizable loans from the World Bank and the Inter-American Development Bank to implement its programs. The Dominican Republic is attempting to expand its health care into the rural areas, while fortifying existing facilities and building new ones in its cities. Both countries place increasing emphasis on the purchase of medical and surgical equipment, hospital equipment and disposables. These are markets where American exporters are already doing well and are expected to do much better, due to proximity and due to Trinidad's recent alignment with the U.S. dollar and abolition of Commonwealth Preferences in its tariff structure. Robert E. Peterson, 202-377-3973.

Industrial Process Controls Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Dec. 6-10. The Singapore Government's plans for a major petrochemical complex and new construction in the electrical energy sector are expected to push sales of process control instrumentation to $12.5 million by 1978. Singapore's requirements for these products are met entirely by imports. To participate contact J. Lee Barnes, 202-377-3893.

ECOLOGY '77—Environmental Purification and Pollution Control Instrumentation and Equipment. U.S. Trade Center for Scandinavia, Stockholm. Dec. 6-10. Sweden, Norway, Denmark and Finland, currently and individually warring against pollution, have programmed an aggregate total of $2 billion plus to be spent on environmental protection by 1984. A significant portion of this amount will be earmarked for the purchase of instrumentation, equipment and controls. Robert J. Blake, 202-377-3088.

Plant Engineering and Operations Equipment Exhibition. U.S. Trade Center, Mexico City. Dec. 6-10. Mexico's rapid strides toward industrialization have created a strong demand for broad-based plant modernization equipment. This show will feature and focus in on selected lines of equipment designed for inside-the-plant operations, principally in the areas of: industrial water treatment; specialized materials handling devices; assembly line automation; industrial machinery lubrication; in-plant pollution prevention and control; and pneumatic/hydraulic controls and systems. All of these categories are finding an increasing market within the sectors of Mexican medium and heavy industry establishments which are desirous of achieving higher output and efficiency through plant modernization. Damon LaBrie, 202-377-4463.

Offshore International Exhibition. Birmingham, England. Dec. 7-10. The continuing development of North Sea oil resources offers good opportunities for U.S. suppliers of oil and gas field exploration, production and transmission equipment, instruments, systems, supplies and services. U.S. exports of oilfield equipment and pipe to countries active in the North Sea oilfields are substantial and growing. U.S. exports to the United Kingdom alone in 1975 totaled $32 million, up from $19 million in 1974 and $11 million in 1973. Demand is highest for oilfield equipment and pipe, but sales opportunities also exist for a wide range of supportive products, e.g., floating structures (rigs, barges, vessels, tanks, etc.), helicopters, telecommunications equipment, valves, processing and field instruments, welding equipment and drilling fluid. At least five new North Sea fields are expected to open by the end of this year. A $3 billion market for products and services is expected in 1976, with the total rising to $5 billion by 1980. Official exhibits will be mounted by many countries. George A. Kemp, 202-377-3713.

Advance Business Equipment and Systems Exhibition and Seminar. Taipei. Dec. 13-17. This JEEP (Joint Export Establishment Promotion — for new-to-market participants only) will focus on a rapidly growing market in the Republic of China. The economy in Taiwan has recovered strongly from the recent world recession. Imports of U.S.-produced business equipment and systems are expected to reach $17.5 million by 1979—up from $11.2 million in 1974. Peter Wilson, 202-377-4227.

Building Products and Construction Equipment Catalog Exhibit. Philippines, Thailand and Malaysia. January. All three countries are initiating aggressive building programs and expect to import most or all of the building products and construction equipment required. Pre-engineered and modular construction are either established techniques or are gaining wide acceptance in all three markets. Reinforced concrete, wood-frame, hollow building block, and structural steel are the common building techniques. Aluminum and wood are used for window and door frames. The program in the Philippines is the most dynamic, with an expected 40 percent growth in consumption of building products and construction equipment by 1980. The programs of the other two are highly promising, enhanced further by the fact that they import nearly all that they use in this field. Robert E. Peterson, 202-377-3973.

Pet Products Exhibit (JEEP). Paris. Jan. 10-13. By 1985, France is expected to be the largest market in all of Europe for pet foods and accessories. Its 51 million residents currently care for some 7.5 million dogs, 7.5 million cats and the contents of 2 million bird cages and 1 million aquariums. One family in two has at least one pet. Because of the market's growth rate, good opportunities exist for American firms to introduce new products. Some 6-8 new-to-market firms will be eligible for this event. Ned Krause, 202-377-5381.

Microwave Technology and Test Instruments—Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. Jan. 19-21. With the French Government's recently announced plan to expend $30 billion during the next 5 years to modernize the national telephone system and with the recognized technical superiority of U.S.-made microwave products and test equipment, France promises to be a prime export market for U.S. manufacturers. This Trade Center event is an excellent and inexpensive opportunity for 6-8 new-to-market firms to find representation and to claim a share of the French microwave market, which is expected to grow at an annual rate of 20 percent for the next several years. Products to be featured include components, circuits, test and measurement instruments, equipment and systems, and antennae. Contact George Ruffner, 202-377-5381.

Business Equipment and Systems Exhibition. U.S. Trade Centers, Paris, Jan. 31-Feb. 3; London, Feb. 8-11. These events will provide exceptional sales opportunities for American manufacturers. Past experience has shown that they attract executives influential in the purchase of equipment. The U.S. Trade Centers in Paris and London provide an effective and economical means of reaching buyers or setting up distribution. Exhibitor's contribution fee is $900 for companies new-to-market and $2,000 for those already established. Dwight L. Umstead, 202-377-4414 or 2177.

Avionics and Ground Support Equipment Technical Sales Seminar. Greece, Italy and Yugoslavia. Feb. 1-10. Seminar sessions will be conducted in Athens, Rome and Belgrade. "State of the art" presentations emphasizing the latest technological achievements in specific areas of avionics and ground support equipment will be given. Product categories to be included encompass communications such as traffic controls and flight instrumentation such as navigational aids commonly found in aircraft. Also, terminal support equipment and products used to test and service aircraft and aircraft engines as well as baggage and cargo handling systems. Airport and aircraft requirements are expanding rapidly as efforts are made to modernize and improve air transportation systems in these countries. W. Bradley Tyrrell, 202-377-5285.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

2392 — UNITED KINGDOM — Company seeks diversification into **new textile technologies or light engineering utilizing present production and marketing know-how.** Acquisitions, licensing, joint ventures and agency/distributorships are of interest. Firm is manufacturer of quilts, pillows, sleeping bags, with interest, through wholly owned subsidiary, in manufacturing and installation of aluminum window frame double-glazing units. Employs 350. T. W. L. Kay, Mng. Dir., Fios Group Ltd., Greendykes Industrial Estate, Broxburn, West Lothian, Scotland. P-76608.

2640—FRANCE — Seeks to manufacture under license and distribute **specialty papers.** Established 1836, firm employs 170 and operates 2 plants. Produces several types of papers. Annual sales, $25 million. M. J. Heulot, Mgr., Papetries Leon Riquet, 48, rue des Maraichers, 75020 Paris. P-76570.

2821—INDIA — Seeks collaboration with U.S. suppliers of technology and equipment to establish **first melamine plant** in India. Proposed to use closed cycle or total recycle process based on urea to produce 5,000 metric tons of melamine annually. Project is estimated to cost about 105 million rupees, including estimated foreign exchange component of 35 million rupees. Indian firm is sponsored by Assam State Government; has just established new factory at Namrup to produce urea formaldehyde and other chemicals. Has received preliminary approval and official clearance for foreign collaboration for melamine project. G. S. Harnal, Mng. Dir., Assam Petrochemicals Ltd., Namrup 786621, Assam, or Assam Industrial Development Corporation Ltd., Zoo Road, Gauhati 781001, Assam. P-76571. OPIC.

2834, 2844—MEXICO — Seeks licenses to manufacture **pharmaceutical and cosmetic products.** Firm was founded in 1954, has 45 employees, authorized capital of $185,000. Is 100 percent Mexican owned, manufactures ethical drugs, has no licensing agreements with any U.S. firm. Correspondence can be in English. Ramon Del Villar, Gen. Mgr., Laboratorios Orla, SA, Matri No. 252, Mexico 18, D.F. Telephone, 516-0860. P-76572. WTDR.

2851, 2891—AUSTRALIA — Seeks licenses to manufacture **new products capable of being formulated by a chemical manufacturer for household, home repair, recreation, hobby and boating markets, both commercial and industrial.** Firm is willing to begin by importing finished products; representative will visit U.S. if required. Firm is basic chemical producer which sells to manufacturers; has consumer products division. Eric R. Barton, Mktg. Mgr., Hardman Chemicals Pty. Ltd., Park Road, Seven Hills, N.S.W. 2147. WTDR. P-76573.

2851—YUGOSLAVIA — Seeks technology to produce **industrial and household detergents.** Open to joint venture or licensing arrangement. Firm wishes to expand its productions of household detergents and enter field of industrial detergents. Interested in products for bottling plants, breweries, slaughterhouses using formulas based on special ingredients. Basic raw materials for production are available locally; special ingredients would be imported from U.S. partner. Employs 3,500, has annual sales of about $60 million. It manufactures alkalies, chlorines, agricultural chemicals, PVC resins, synthetic fibers. Trajan Gavrilski, Dep. Dir. Gen., Ohis-Organsko Hemijska Industrija, PP 555, 91001 Skopje. Telex, 51139; telephone (091) 37210 and 37410. WTDR. P-76599. OPIC.

2891, 3951, 3955—AUSTRIA — Leading manufacturer of office supplies, adhesive tapes and special papers seeks licensing agreements for production of: **office supplies, educational and training consumables, packaging and mail room supplies, hobby items, adhesives including application equipment and systems.** Firm is also interested in distributorship agreements for these items. Large portion of company's production is exported worldwide. Established in 1887, employs over 1,000; has annual sales of $30 million. W. Koreska GmbH, Postfach 65, Perfektastrasse 85, A-1235 Vienna. WTDR. P-76607.

2891—MEXICO — Seeks technology to manufacture **polyurethane products such as industrial coatings and paints, fabric coating resins (in solution), emulsions/lattices, and adhesives for packaging and laminating;** also other items including **flock adhesives and adhesives for plastics.** Organized in 1965, firm has 50 employees, annual sales of $4.8 million. Makes polysocyantes, flock adhesives, shoe adhesives and leather coatings. Robert H. Ban, Development Engineer, Simon, S.A., Tochtli No. 236, Frac. Ind. San Antonio, Mexico 16, D.F. Telephone, 561-2511. WTDR. P-76610.

3079 — GERMANY — Seeks licenses to manufacture **chemically blown sponges, open and closed cell, and foamed plastic polyurethane products.** Firm is a leading manufacturer of rubber hoses, conveyor belts, molded rubber goods and plastic foam products. Established in 1896, has 1,300 employees, annual sales of $38 million. Thomas H. Caswell, Commercial Officer, File #003, U.S. Con. Gen., 5 Ceilienallee, 4000 Duesseldorf 30. P-76574.

3079—GERMANY — Seeks technology to produce **hard plastic food trays for use in hospitals, restaurants and households.** Founded 1839, firm is a leading manufacturer of its kind in West Germany; exports to neighboring countries. Employs 60, has annual sales of $1.4 million. Joseph Hansmann, Gebrueder ADT GmbH, Brueckenstrasse 12, D-6480 Waechtersbach 1. Cable. ADTWERKE; telephone, 06053-341; telex 04 184 396. P-76575.

3229—GERMANY — Seeks joint venture and/or sales arrangement with U.S. company to produce **industrial glassware.** Firm presently manufactures hand blown glassware, exports to the common market countries. Established in 1864; employs 30. Mr. Truelsen, Glasfabrik Ernst Friedrich K.G., 1-3 Erfurter Strasse, 2351 Trappenkamp. P-76585.

3272, 3292—FRANCE — Manufacturer of various building products (gypsum, plaster, concrete, adhesives), seeks licensing arrangement for production of any types of **building materials and equipment.** Is also interested in acting as an agent or distributor for same products. Established 1901; employs 5,000, has annual sales over $500 million. Jeffrey Steiner, Int'l Mgr., Poliet & Chausson, 21, rue des Ardennes, 75019 Paris. P-76594.

3272—MEXICO — Seeks joint venture for complete **gravel plant,** including extraction, transportation, warehousing, crushing and shipment of stone. Permits from Secretaria Del Patriomonio Nacional (Secretariat of Nat'l Patrimony), Secretaria De Marina (Navy Dept.) and Secretaria De Hacienda (Finance Dept.) available. Project requires construction machines, barges and other equipment at $1.2 million. Correspondence should be in Spanish. Carlos Manuel Daza, Colima No. 101 (Esq. Independencia), Col. Petrolera, Coatzacoalcos, Ver. Telephone, 228-82. P-76576.

3400 — FRANCE — Manufacturer of variety of metal products, including **slewing rings with cross roller or ball bearing arrangement, crowns for automobile and truck starters, valve seats, frames for electric motors, and stainless steel valves for food industry,** seeks licensing arrangements to produce complementary lines. Would also distribute these products through its large sales network. Representative will be in U.S. during September. If interested in meeting with representative, contact Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. Telephone, 202-377-3786. P-76577.

3420, 3600—FRANCE — Firm interested in manufacturing under license various types of **tools, fasteners, building materials and electrical equipment.** Company would also act as agent or distributor for same products. Established 1959, employs 800. Ph. Bachler, Export Mgr., Plombelec, B.P. 31. 45130 Meung-sur-Loire. P-76578.

3443—BELGIUM — Manufacturer of **steel tanks and steel containers for gas** seeks to establish licensing arrangement with one or more U.S. firms active in same

field. Present clients are petrochemical industries and oil refineries. Capable of constructing tanks up to 5,000 liters. H. Willaert, Purchasing Mgr., N. V. Van Leer, Bollaarstraat 6, 2500 Lier. Telex. 31 927; phone, 031/80 22 65. P-76579.

3443—GREECE — Seeks **technology and equipment to convert oil based industries to lignite coal burning facilities.** Will consider joint venture to produce required boilers. Machinery and equipment should be suitable for plants producing quick lime or ceramic products, also distilleries. Firm is said to be largest private producer of lignite in Greece with mine sites having verified lignite deposits of 40 million tons, and production capacity of 350,000 tons per year. Company also interested in new technology to use lignite for other purposes such as gasification, fertilizers, chemical products. Will consider consultant relationship with U.S. firm specializing in such technology. Constantine G. Varvoutis, Omirou 58, Athens 135. Telephone, 0609451-53. P-76606. OPIC.

3446 — NETHERLANDS — Manufacturer of aluminum ladders, scaffolding, step ladders and related goods is interested in receiving business proposals for manufacture under license and sale of **lightweight scaffolding, pallets and skids, and products for leisure-time activities.** Has four branches in Netherlands and subsidiaries in several European countries. W. T. Visser, Office Mgr., Bijstede BV, Industrieweg 66, P.O. Box 23, Munspeet. P-76580.

3496—BELGIUM—Firm seeks joint venture or licensing proposal from American company in field that would complement its **steel wire and cordage program.** Produces steel wire rope and exports 50 percent of its production to world markets. Has division for binder and baler twine manufacturing which it intends to close down. A third division produces cordage. Company states it can count on Belgian Government subsidies if joint venture proposal would require substantial new investment, as well as on extensive financial backing of its own group. H. Termote, Mgr., Le Lis N.V., Boontje 10, 9160 Hamme. P-76595.

3519—AUSTRALIA—Firm seeks to manufacture under license **diesel auxiliary engines** up to 20 hp. for use in small boats. Also prepared to import initially. R. Woodward, Mktg. Mgr., Westinghouse Brake & Signal Co. Pty. Ltd., 27 George St., Concord, N.S.W. 2138. P-76600.

3523—YUGOSLAVIA—Large firm seeks joint venture or licensing arrangement to produce **agricultural equipment** as follows: harvesting, transportation, warehousing and drying equipment for feed systems; equipment for mechanized production of fruits and vegetables; harvesters for soybeans, beans, peas, seed; combined equipment for presowing land preparation; specialized sowing machines and cultivators; transporters for wine grapes, other fruits and vegetables; grain and seed dryers. Additional information from Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76581. OPIC.

3540 — SWITZERLAND — Prominent licensing consultant is interested in meeting with American firms seeking licensees in Europe. Plans to visit U.S. Sept. 10-25; itinerary includes San Francisco, Los Angeles, Boston, New York. Products of special interest are **high precision machinery, tools, machine tools including industrial controls and possible diversification of textile plant.** Also prepared to discuss other licensing, marketing opportunities. Swiss businessman has solid background in licensing, has organized several European seminars on subject. Pierre Hug, Pres., Hug Interlizenz AG, Alte Zubrcherstrasse 49, 8903 Birmensdorf, Zurich. Telephone, 01/ 95 49 61; telex, 57544; cable, HUGLIHQNS BIRMENSDORF. Addresses in U.S. will be c/o Walter Hofer ,221 W. 57th St., New York, N.Y. 10019. telephone, 212-582-5030 and telex, 064/422 062; or West Coast, c/o Buskin, Kopelson, Walsh. Trugmann, 270 N. Canon Drive, 3rd Floor, Beverly Hills, Calif. 90210; telephone, 213-273-7505; telex, 0650/698109. P-76582.

3545, 3832 — GERMANY — Firm seeks licensing agreements for manufacture of **optical rotating generators up to 10,000 impulses/360°, optical angular coders up to 10,000 parts/360°, optical longitudinal ated counters for indication and preselection, compression boxes up to 500 bar (accuracy 0.5% and 0.2%), and fluxmeter boxes up to 100 kn (accuracy 0.5% and 0.2%).** Herr Lenord, Gesellschaft fuer Elektronik Lenord & Co., Dohlenstr. 32, 4200 Oberhausen-Sterkrade. P-76597.

3559—FRANCE—Engineering and design firm seeks **non-exclusive license for water treatment processes.** Specializes in water treatment, environmental protection, energy and fluids. Employs 50 engineers and technicians; operates three laboratories. Has offices in several French cities. Firm is experienced in design, evaluation and control of industrial, drinking and domestic water systems. Guigues SA, 1 Allee de la Bastide des Cypres, 13100 Aix-en-Provence. P-76583.

3559—SWITZERLAND — Seeks licenses to manufacture products for inclusion in its own **waste water treatment systems** which are sold to metalworking industries throughout Europe. Products of special interest are: **ultrafiltration equipment for neutralization plants, reverse osmosis systems for treatment of chemical solutions, membrane filters for same applications, and centrifuge type oil water separators and brand-type filters.** Also interested in **licensing agreements for automatic feeders and loading arms for use with machine tools.** Swiss firm is actively marketing its waste water treatment systems. Operates modern production facility. Part of a prominent Swiss concern. Mr. Rickli, Maschinenfabrik Meyer AG, 4707 Deitingen. Further details available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76602.

3561 — BRAZIL — Medium sized **pump** manufacturer seeks to expand production. Is interested in license or similar arrangement to produce **submersible pumps for tubular wells, pumps for chemical industry and process pumps for petroleum industry.** Presently makes centrifugal single-stage pumps, irrigation, injector contractor and swimming pool pumps. Firm is well managed. Reynold Gerard Keel, Gen. Mgr., Equipamentos Mark Ltd., Caixa Postal 49, 09900 Diadema (SP). P-76609. OPIC.

3561—FRANCE—Seeks license or distribution agreement to produce **special pumps for waste water, sewage purification equipment, air compressors and water pollution control equipment.** Presently, firm makes submersible, vacuum and centrifugal pumps. Also is distributor for several foreign firms. Mr. Malabar, Pres., Baudot Hardoll SA, 136 route de Fleury, 91170 Viry Chatillon. P-76603.

3569—GERMANY — Seeks licenses for **industrial pressure filters** (excluding automotive filters and industrial centrifuges). Firm is also interested in exchange of **know-how in reverse osmosis water purification.** Specializes in industrial filters, is well known in Germany for its technology in this field. Employs 45, good reputation. Ludwig Bergsmann, Mgr., BEDA Filtertechnik GmbH & Co., Vertriebs KB, Bodmaner Strasse 2, D-7760 Radolfzell 14 (Stahringen). Phone, 07738-5036; telex, 793771. WTDR. P-76584.

3585—MEXICO—Interested in license to manufacture **commercial refrigeration equipment for restaurants and supermarkets.** Seeks technical know-how and patent or trademark. Return offered U.S. licensor is fixed fee. The Mexican conglomerate is expanding its product line to include commercial refrigeration. Hans A. Frey, Empresas Nieto, S.A., Aptdo. Postal No. 63, Celaya, Guanajuato. P-76604.

3613, 3679—ECUADOR Large distributor of electrical equipment seeks American manufacturer interested in granting patent name and supplying **components for local assembly of load centers and electric load center circuit breakers.** Capital wil be contributed by local firm. Compensation to foreign participant to be in the form of royalties. However, local firm also willing to discuss foreign capital participation under Andean Pact limitations. Estimated monthly production: 800 load centers, 10,000 circuit breakers. These production figures could be increased depending upon eventual permission to export to other Andean Pact countries. Raw materials to be obtained from U.S. partner. Gunter A. Chanage, E.E., M.E., Gen. Mgr., Electro Comercial Chanage Cia., Ltd., P.O. Box 8423, Guayaquil. WTDR. P-76611. OPIC.

3631—ECUADOR—Seeks license to assemble **small household electric appliances such as waffle irons, food blenders, hot plates and coffee percolators.** Also interested in assembling **sound equipment for entertainment purposes.** Local firm would provide capital, plant site and equipment. Would purchase components from U.S. licensor. Ecuadorean company has experience in assembly of console type record players. Selim Doumet A., Ass't. Mgr., Deca Cia. Ltda., P.O. Box 5237, Guayaquil. WTDR. P-76586. OPIC.

3661—UNITED KINGDOM Small company seeks to manufacture **business or marine communications equipment** under license. Distributes amateur HF and VHF communications equipment, antennas, headphones, power meters and accessories. Presently represents several foreign companies. K. W. Perfect, Amateur Electronics UK, 508-514 Alum Rock Road, Alum Rock, Birmingham B8 3HX, England. P-76587.

3662—BELGIUM — Medium-sized firm seeks subcontract for **geophone stringing work.** Produces magnetic read-write heads for computer memories (tape and disc); also markets other computer products such as geophysical equipment, computer terminals, P.C. boards and core memories. Employs 120. R. J. Laureys, Gen. Mgr., Applied Magnetics Belgium n.v., Industriezone, Raadsherenstraat 3, 2300 Turnhout. Telex, 31831; telephone, 014/41 59 11. P-76588.

3674—PHILIPPINES—Seeks joint venture to produce **semiconductors and other**

micro-electronic circuits. Would supply international markets. Firm is affiliated with well known and diversified Filipino business group. For further details, contact Salvador Palanca, Ass't. to Treasurer, La Tondena Inc., Carlos Palanca St., Quiapo, Manila. P-76589. OPIC.

3679—FRANCE—Seeks subcontracting or licensing arrangement to manufacture **electrical, electronic or pneumatic components.** Presently, firm makes electric panels. Employs 75; good reputation. M. Jean Alletru, Ass't. Gen. Mgr., Tableaux Electricques de Picardie (TELEP), Z. I. Rouvroy, B. P. 218, 02106 Saint-Quentin. P-76590.

Financing Sought For Tourism Projects In Central America

Eight tourism projects in Central American countries and Panama are in need of financing. Both loans and equity investments are desired. The projects have been developed by Secretaria de Integracion Turistica Centroamericano (SITCA). SITCA is an office organized by five Central American countries, Panama, and the U.S. Agency for International Development, to promote the development, financing, and marketing of well-planned hotel and tourism facilities in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

Thorough feasibility studies have been completed for the projects, and they have received proper government support. Detailed information about the facilities (briefly described below) is available through Sea Pines Associates, Hilton Head Island, S.C. 29948; telephone, 803-785-3333. P-76626. OPIC.

Tela, Honduras. Resort community consisting of 200-room hotel, 300 condominiums, 610 single-family homesites, 205 townhouses, 60 terraced apartments, golf course, four tennis courts, marina, three restaurants, 2 bars, and disco areas. Name of resort, El Paraiso; financing sought, $4.3 million.

Lake Hopango, El Salvador. Hotel/apartment/condominium complex in which Phase I facilities include 70 apartments, small grocery store, coffee shop, bar, swimming pool, and parking lot for 100 cars. Phase II includes a yacht club, 42 additional apartments, 42 condominium units, restaurant and coffee shop, swimming pool and parking lot for 50 cars. Phase III facilities to be provided are a private social club house, restaurant, a bridge connecting the island to the mainland, night club-restaurant, marina and several cottages. Resort, Isla Verde; financing sought, $2.5 million.

Jaltepeque Peninsula, El Salvador. Ocean front hotel sites along the pacific coast of El Salvador. All properties are considered to be prime ocean fronts. Prices include a paved access road as well as water, sewer, telephone and electrical utilities provided on the properties. Area, Costa Del Sol; price per acre, $81,060.

Rio Mar, Panama. Resort complex consisting of one main building containing 26 units and a restaurant, five one-bedroom cabins with separate baths, four double cabins with a collective bath. Plans call for modernization and expansion of existing facilities. Resort, Rio Mar; financing sought, $505,000.

Pinas Bay, Panama. Salt water game fishing resort is for sale. Facilities include a club house, five cabins, employee dormitory, swimming pool, dry dock, nine Betram deep sea fishing boats and three Sea Craft fishing boats. Additionally, 12,000 acres of undeveloped land are included in the sale. Resort, Tropic Star Lodge; price of all facilities and land, $500,000.

Lake Atitlan, Guatemala. A complex consisting of 193 apartments, restaurant, cafeteria, lounge/bar/discotheque, swimming pool, sauna and health club. Resort, Los Torres De Atitlan; financing sought, $1.5 million.

Puntarenas, Costa Rica. A large beachfront hotel consisting of 225 rooms, five shops, bar, restaurant and several meeting rooms. Recreational facilities will also be provided. Hotel, Amstel Cocal, financing needed, $3 million.

Lagomar, Panama. A year-round hotel and resort complex which will include a 56-room hotel with 4 luxury suites, 20 bungalows, conference center with a capacity for 200 persons, casino, coffee shop, discotheque, barber shop and beauty salon, sauna, swimming pool, two tennis courts, and a golf course. Resort, Plava Esmeralda; investment required, $3.4 million.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2248), referring to the appropriate file number.

AUSTRALIA—Firm manufacturing **attache cases incorporating folding umbrella** wishes to arrange for its manufacture under license in U.S. File 3073

AUSTRIA—Firm wishes to establish contact with U.S. manufacturer to work out arrangement for manufacturing in both U.S. and Austria. Is primarily interested in industrial and commercial **air conditioning equipment, industrial processing equipment, materials handling equipment and technical novelties.** Is presently making die blocks for production of injection molded forms for weight up to four kilograms. In addition, it operates a powder coating plant for plastic coating of metal parts. File 3074

AUSTRIA—Firm is interested in making arrangements with U.S. firm concerning production of a **soft contact lens, and lenses which can absorb a certain quantity of liquids.** File 3075

FRANCE—Manufacturer of gears, transmissions, speed changers and drives wishes to work out licensing arrangements with U.S. firm. File 3076

ITALY—Architect who holds several patents in Italy and U.S. for reinforced, modular designed, prefabricated, **concrete structures** would like to contact public urban organizations and general contracting organizations to work out joint-venture business arrangement. File 3077

GERMANY—Well reputed German manufacturer of road construction machinery would like to make two-way arrangement for manufacturing license for its **storage bins, conveyor belts and screening equipment** used in construction of bituminous roads; **bituminous road construction equipment** with heat resisting qualities which it has developed. File 3078

GERMANY—Manufacturer of mobile cranes is interested in establishing manufacturing facility in U.S. for production of its 12-, 27- and 40-ton mobile, **truck-mounted cranes and telescopic jib.** Would provide employment of some 50-60 persons. Form of investment open to discussion. File 3079

GERMANY—Manufacturer of **metal screws, nuts and bolts** is interested in establishing facility to manufacture these products in U.S. Form of investment open to discussion. File 3080

GERMANY—Large manufacturer of **machines for saw-sharpening, saw-swagging, equalizing, hardening, filling,** and **saw setting, roll saw stretchers,** and **tensioning benches** wishes to start own production in U.S. While form of investment is open to discussion, preference would be to purchase. File 3081

GERMANY—Very large manufacturer of **shucking tools,** who already has representatives in various cities in U.S., wants to start own production plant in U.S. Firm is only interested in purchase arrangements. File 3082

GERMANY—Firm wishes to establish **nursery** in U.S. that would produce and export patented varieties of **African violets** under trademark. U.S. nursery would reproduce plants from leaves of mother plants which would be imported originally from German firm. In 1975, firm exported over 12 million plants to Australia, European countries, South Africa and Japan. While form of investment is open to discussion, top priority would be buy-out of small nursery with approximately 50,000 sq. ft. of greenhouse space and land for expansion. File 3083

GERMANY—Old, established German firm offers 2-way licensing arrangement with American firm to manufacture **conveyor systems** primarily for furniture industry and metal working machinery. File 3084

GERMANY—One of four largest German manufacturers of **hair cosmetics** seeks U.S. company to take over manufacture and distribution of its products in U.S. Production program includes shampoos, tints, bleaches, permanent waving, lotions, neutralizers, setting lotions, conditioners, texturizers, accessories. File 3085

GERMANY—Independent inventor of photographic equipment is offering **three-dimensional camera** for reverse licensing. Many of his inventions have been patented worldwide and have found ready market. Three dimensional camera is his latest invention. It includes development equipment. Sale of this camera has reportedly been successful in British market but it is not yet on American market. File 3086

GERMANY—Manufacturer of **compressors for refrigeration industry** is looking for joint venture partner in U.S. German manufacturer is of medium size, manufactures compressors for refrigeration plants and equipment. Form of investment is open to discussion. File 3087

GERMANY—Firm offers licenses for molded and foamed **thermoplastic, polyurethane and polyvinylchlorides.** Firm is a leading W. German manufacturer of adhesives used in chemical, plastics and leather industries, and is exporting its products worldwide. File 3088

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Broad woven fabric mills, cotton

• **22110—ZAMBIA** — Government Stores Department, Tender No. MF/GS/433, for 45,000 cloths (floor, glass and kitchen); 36,000 dusters; and 20,000 towels (hand and bath) per annum. Closing date Sept. 17. Samples offered must be forwarded (shipment paid) to Director of Supplies, P.O. Box 476, Lusaka. Copies of tender document available from Director of Supplies.

Knitting mills, products

• **22530—ZAMBIA** — Government Stores Department, Tender No. MF/GS/429, for 8,000 white military-type shirts. Closing date Sept. 10. Copies of tender documents and samples available from Director of Supplies, Government Stores, P.O. Box 476, Lusaka.

Textile goods

22993XX—BOLIVIA—Wool fabrics for men & women's apparel; dacron, or equal, fabrics all types & colors. Corres. in Spanish. Reply to—Casa Montalvo E. Hijos, Avenida Domingo Paz 764, Tarija.

Millwork, veneer, plywood, prefabricated structural wood products

• **24300—ZAMBIA**—Central Supply and Tender Board, P.O. Box 1009, Lusaka, requests bids for 1,500 ledged and braced batten doors, 4,800 flush and mosquito doors, and 1,900 flush doors faced with tempered hardboard, between Nov. 1, 1976 and Oct. 31, 1977. A sample of each type door offered must be forwarded, shipment paid, to the Director of Stores, P.O. Box 476, Lusaka. Closing date Aug. 27. Detailed specifications and general instructions available from U.S. Department of Commerce, Construction and Forest Products Division, Room 2112, Washington, D.C. 20230, 202-377-3365.

Drugs

28310, 28330—FRANCE — Government-controlled corporation seeks suppliers of diagnostic and other biological products for human and veterinary applications. Also antibiotics for veterinary and food uses. Contact Jean Michel DeJeammes, Societe Nationale Des Poudors et Explosifs, 12, Quai Henri V, 75004 Paris; Cable — Natpoudres; Telex — 220 356 Poudres Paris; Telephone 277-1570.

28340, 28410—GERMANY — Well-known German manufacturer of health care products, soap and detergents plans to invest $20 million in either a joint U.S. venture or acquiring financial participation in existing U.S. firm in its field. Interested parties contact: R. Heumann, American Consulate General, File # 005, Box 515, APO New York 09080.

28340 — PAKISTAN — 50,000 bags (1000CC) dextrose (5 percent)—saline (0.9 percent with needles); 50,000 bags (1000CC) dextrose (5 percent); required by medium-sized importer (annual sales $300,000/yr.). Contact Y. Y. Saya, Sabereen Corp., Moolji St., Off Newnham Road, Karachi 2; cable "Guleanar" Karachi; telephone 234285.

28340—ZAIRE—The Societe Africaine Austro-Zairoise, a Technoma AG affiliate, is coordinating the procurement of medical supplies (valued at $5 million) for Zaire's military support. For further information contact Mr. Zimmermann, Technoma AG, Postfach 110A, 6301 Zug, Switzerland; Telex 72 114 TEMA.

• **28340—ZAMBIA**—Ministry of Health seeks bids on 40 and 80-unit insulin (soluble, protamine zinc, zinc suspension lente, amorphous and crystalline). Closing date Aug. 13. Tender No. MF/MED/443. Tender documents available from U.S. Department of Commerce, Room 2104, Washington, D.C. 20230.

Gum, wood chemicals

28690, 28790, 28920—FRANCE—Government-controlled corporation seeks U.S. sources of pesticides and other organic chemicals, insecticidal, herbicidal and fungicidal preparations including soil fumigants, and explosives (solid and slurry). Jean Michel DeJeammes, Societe Nationale des Poudors et Explosifs, 12 Quai Henri V, 75004 Paris.

Agricultural chemicals

• **28790—CAMEROON**—Supply of pesticides and equipment for application. Pesticides to combat brown decay in cocoa pods, anthracnose in Arabica coffee beans, early death of cocoa trees, antestia of Arabica coffee plants, scolytes of Robusta coffee plants, and insects affecting germination and nursery plantings. Bid deadline Sept. 20. Tender documents available for 25,000 CFA francs ($116) from Monsieur le Directeur General, Fonds National du Developpement Rural, B.P. 1548, Yaounde; address bids to same, in English or French.

• **28790—ZAMBIA**—Supply of pesticide products as follows: 385 000 liters of disinfectants in 1, 5 and 45-gal. containers; 150,000 aerosol cans of insecticide; 40,000 liters of liquid insecticide in 1-gal. containers; 25,000 liters of liquid concentrate insecticide in 1-gal. containers; 2,500, 500-g. packets of DDT—10 percent powder; 2,000, 500-g. packets of DDT—50 percent powder; 2,000 1-kg. packets of DDT—50 percent powder; 3,000, 5-liter cans of carbolineum preservative; 3,000, 5-liter cans of wood preservative. Tender number MF/GS/434. Send bids to Secretary, Republic of Zambia Central Supply and Tender Board, P.O. Box 1009, Lusaka. Bid deadline Sept. 17. Tender documents available from BDC/OBRA, Room 2104, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3420.

Plastic products

3079813—PORTUGAL—Cellophane, to be used for annual production of 1,000,000 packs of cigarettes. Firm enjoys good reputation as reported by local references. Reply to—Farinha Dos Santos, Cepric-Centro de Promocao Industrial de Comercial, Lda., 47/3/D Av. Visconde Devalmor, Lisbon 1. Telex 12711 Cepric P; tel 762172.

Steel mill products

• **33100—COSTA RICA**—5,000 ft. galvanized wire rope. Tender No. T43; no bid deadline indicated. Ricardo Cox, Iproveedor Japdeva, Apartado T, Limon. Details available at above address. Merchandise urgently needed.

• **33100—INDIA**—400 mt. tramway rails. Tender No. S/37/76/GT; bid deadline Sept. 15. Office of Controller of Stores, Metropolitan Transport Project, Mission Row, 3rd Floor, Calcutta 700001. Tender documents available at above address at RS 30 ($3.36).

Rolling, drawing, extruding of nonferrous metals

• **33570 — YUGOSLAVIA** — Ponuda Za Kabel, Jugoslovenski, Naftavod, Radnick Dol 50 (SOBA4) 41000, Zagreb, has issued tender no. Sluzbeni List 31 for supply of cable and equipment for functional telecommunications network for Yugoslav oil pipeline. Bid deadline Sept. 22. Tender documents, U.S. $200 per set, must be picked up in Zagreb. U.S. Consulate, Zrinjevac 13, 41000 Zagreb, (Tel. 444-800), can assist potential bidders.

Metal stampings

3469948 — CHILE — Porcelain-enameled hospital utensils. Interested in turn-key operation to equip new military hospital of Santiago. Total value of project est.

$8,000,000, of which about 50 percent represents imported equip. Call or cable—Miguel Yoma, Mgr., Prodimex Ltda, Agustinas 715, 8 Piso, Santiago. Tel. 396031.

Fabricated metal products

3497132—GERMANY—Aluminum foil for packing food, household use. W. Berlin importer & distr. of packaging equip. seeks import of above for W. Berlin market. Quote c.i.f. European port if possible. Reply to—Herrn Hirschfeld, Begro GmBH & Co., Ringbahnstr. 22-30, 1000 Berlin 42. Tel. (030) 75-21-081.

Engines, turbines

• **35100, 36200—ECUADOR** — U.S. firms wishing to participate in future foreign government tenders in Ecuador, for the following equipment, must have a local agent or representative. Those without a representative contact the nearest U.S. Department of Commerce District Office. 1) Managing Director, Empresa Electrica, Quito, announced a government tender would soon be issued for an additional 25 megawatt gas turbine generator, to be installed near Quito at Guangopolo. 2) Head of the Foreign Loan Department of Instituto Ecuatoriano de Electrificacion (INECEL) reports that INECEL or its subsidiary Empresa Electrica Manta will soon be soliciting tenders for two 5-megawatt diesel generating units.

Farm machinery

35230, 35890—IRAN—Supply of composting machinery for use in several Iranian cities. Capacity of 50-300 tpd. Suppliers should write directly to: Mohsen Zahedi, Managing Director, The Classification Organization of Iran, 48 Mohajer St., N. Iranshahr Ave., Tehran. Tel: 823197. Telex: 212982. Cable: Radenbahni, Iran.

Metalworking machinery

• **35400, 35700, 37100—HONDURAS**—Leonidas Rosa, Proveedor General, Proveeduria General De La Republica, Aportado Postal 177, Tegucigalpa, D.C., has issued tender no. 26-76 for supply of office equipment, movie sound projectors, dressmakers supplies, agricultural supplies, drawing materials, audio-visual supplies, cafeteria equipment, school buses, vocational training supplies, all for use in schools. Bid deadline Oct. 1. Copy of specifications available from above address for 30 lempiras ($15).

Special industrial machinery

• **35590—TURKEY**—Supply and erection of composite turnkey fertilizer plant to be integrated with existing plant at Iskenderun for production of 320,000 tons/year. Bid deadline Sept. 30. Bidding specs. in English available for 1,500 TL (16 TL = U.S. $1, approx. $94 total.) Total value not known. Write to: Gubre Fabrikalari A.S., Buyukdeere Caddesi 1:0, Mecidiyekoy, Istanbul.

• **35595—TURKEY**—Government requests bids on shoe making machinery: 1 automatic pulling over machine; 1 outsole stitching machine; 1 automatic upper lacing machine; 4 toe and heel lasting machines; 1 electro-hydraulic, two-station rubber sole and leather cementing press; 1 rough rounding and channelling machine. Tender number 489/01/T0132. Option: min. four months. Delivery: To be quoted in Tender. Shorter deliveries preferable. Prices: f.o.b. Istanbul. Payment: L/C. Bidding documents in English from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara, for $8.50—reference #8097. Check should accompany document order. Submit bids to Mill I Savunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, (Ministry of Defense). Bid deadline Sept. 13.

General industrial machinery

• **35690—KENYA**—Supply and delivery of two bandscreens for intakes to the raw water pumping station on the Sabaki River (about 40 km. W. of Malindi) and provision of an engineer to check erection of and to commission the plant. Bid deadline Sept. 21. Each bandscreen will be required to pass flows of up to 3,600 M3/hr. Tender documents available from Director of Water Development, Ministry of Water Development, P.O. Box 30521, Nairobi, at K. SH. 500 (approx. $70 U.S.) payable in Kenyan currency to Director of Water Supply. Tenderers must satisfy the Ministry of their ability to complete the projects. Tender deposits will be refunded on receipt of valid and complete tender or upon disqualification of bidder. Ref.: Contract MCS/4.

Household appliances

• **36360—TURKEY**—Government requests bids on sewing machines: 2 two-needle, flatbed machines; 2 single-needle, lockstitch machines; 6 complete automatic buttonholers; 5 two-arm chainstitch sewing machines; 3 automatic bartacking machines; 5 automatic single-thread, chainstitch button sewing machines; 2 automatic lockstitch shirt buttonholers; 8 four-needle lockstitch machines; 3 zig-zag flatbed machines; 6 sack-side machines. Tender number 489/01/T0132. Option: min. four months. Delivery: To be quoted in Tender. Shorter deliveries preferable. Prices: f.o.b. Istanbul. Payment: L/C. Bidding documents in English from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara, for $8.50—reference #8097. Check should accompany document order. Submit bids to Mill I Savunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, (Ministry of Defense). Deadline Sept. 13.

Electrical lighting, wiring equipment

• **36480—INDIA**—Purchase Officer, Coal India, Ltd., Purchase Dept., 15 Park St., Calcutta 700016, has issued tender no. CIL/C-2(D) Flame Safety Lamp/1976/JRD (Global) for supply of 300 top feed flame safety lamps for use in underground mines. Bid deadline Oct. 12. Copy of specifications available from address above at Rs 15 (US $1.69) per set.

Communications equipment

• **36610—BRAZIL**—Furnas—Centrais Electricas, S.A., Directoria de Contratos E Suprimentos, Rua Real Grandeza, 219—10 Andar 20000 Rio de Janiero, has issued tender no. IMP-6862 for supply of telephone switchboards and auxiliary equipment for Itumbiara load-dispatch communications system. Copy of specifications available from above address at CR 1,000 (approx. U.S. $100) per set.

• **36610—TONGA**—Kingdom of Tonga, c/o Preece Cardew & Rider, Paston House, 165/7 Preston Road, Brighton, BN1, 6AF, England has issued tender no. TBU-001 for supply of telephone instruments. Bid deadline Sept. 15. Copy of specs. available from address above.

• **36620—BOLIVIA**—Eduardo La Faye, Gerente General, Empresa Nacional de Television, Casilla 900, La Paz, has issued tender for supply of one compact mobile unit for TV transmission, black & white, 625 lines, 50 cycles, 220 volts with heliciodal and transversal recorder, microwave connection, monitors, video table, audio table, two cameras with accessories, camera controls, and generator set. Should be equipped for mountain terrain, with standard transmission, heavy-duty shocks, and illumination system. Send sales literature and specifications to Senor La Faye at above address.

• **36620—CYPRUS**—Chief Engineer, Cyprus Telecommunications Authority, Hadjikyriakos Bldg., 4th floor, 121 Prodromos Ave., P.O. Box 4929, Nicosia, has issued tender no. AT12/76 for supply and factory testing of UHF radio and multiplex equipment to establish communication between Nicosia-Paralimni (38 miles) and Nicosia-Klirou (15 miles). Equipment will operate in the UHF band 400-470 MHZ with an RF input and output impedance of 50 ohms. Specifications available from above address at 6 Cyprus pounds (U.S. $15) for two sets.

• **36620—INDIA**—Director General, Posts and Telegraphs, MMD Section, Parliament St., New Delhi 110001 has issued tender no. 12-141/76 MMD for supply of two sets automatic receiving equipment for radio telephone alarm system. Also, tender no. 12-143/76 MMD for supply of 50 sets of 30-channel pulse code modulations systems, bid deadline Oct. 4. Copy of specifications for either tender available at U.S. $2.74 per set from Assistant Director General (Imports), Room 514, address above.

Instruments for measurement, analysis and control

• **38240—AFGHANISTAN**—President, Central Authority for Water Supply and Sewage, Nadir Shah Mina, Kabul, has issued tender no. IDA Credit 563AF, Contract Number 10, for supply of 10,780 water meters, sizes 15 to 50mm, plus spare parts and personnel training. Bid deadline Oct. 23. Copy of specifications available from above address for AFS 2,500 (about US $50).

• **38250—THAILAND**—Purchases & Stores Dept., Metropolitan Electricity Authority (MEA), 121 Chakpetch St., Bangkok, has issued tender no. ADB-MEA 309 for supply of 8,000 watt-hour meters, 3-phase, 4-wire 220/380 volts, 50 cycle, A.C. Bid deadline Oct. 19. Copy of specifications available from address above at U.S. $5 per set.

38213XX—BELGIUM—Pressure & temperature control apparatus; solids control equip. Dir. sale & agency. Engineering firm with technical specialties for chemical, petrochemical, petroleum & all related industries. Clients are in Benelux, E. Bloc, Germany, S. Africa. Reply to—C. J. Bergmans, Mng. Dir., Tarcobel N.V., Lambrechtshoekenlaan 171, 2060 Merksem. Tel 031/460968; telex 34231.

• **38250—PARAGUAY**—Division de Acquisiciones, ANDE Departamento de Licitaciones, Calle Padre Cardozo, 560, Asuncion, has issued tender no. 125/76 for supply of AC Watt-Hour meters, single phase, 220 V, as follows: 10,000 with range 5-20 A; 4,000 with range 10-40 A; 1,000 with range 15-60A. Bid deadline Sept. 14. Estimated total cost U.S. $150,000. Bids should be submitted through local agent registered with ANDE. Copy of specifications available from above address for guaranies 3,150 (U.S. $25).

Optical instruments, lenses

• **3832120—YUGOSLAVIA**—One nuclear magnetic resonance spectrometer with ability to work with protons H1 & C13 to be used for organic chemistry analyses. Bids should be submitted in 5 copies in sealed envelopes carrying the mark "Za Licitaciju" by Sept. 22. Bids should contain technical description, brochures, guaranty conditions, spare parts supply possibility, prices, conditions for payment in cash & crediting terms. Reply to—Mrs. Djurdja Krajac, Import Div., Jugosanitarija, Export-Import, Amruseva 6, 41000 Zagreb. Cable Jugosanitarija; telex 21445 Yu San Zc; tel. 413-066.

• **38320 — TURKEY** — Milli Sarunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, has issued tender for supply of 500 pocket-type and 200 mirror-type stereoscopes for evaluation of aerial photographs. Stereoscopes should be equivalent to Federal Stock No. 6671-641-3561 and 6675-641-3558 or equivalent. Bid deadline Sept. 17. Copy of specifications available at US $6 from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara. Document reference number is 8122.

Photographic equipment, supplies

• **38610—SRI LANKA** — S. Aludeniya, General Manager, Sri Lanka State Trading (General) Corp., P.O. Box 1686, 119 Wekande Rd., Columbo 2, has issued tender no. TQ8/76/10 for supply of medical and dental x-ray film, chemicals and paper. Bid deadline Sept. 21. Estimated value of products to be purchased is about U.S. $226,000. Copy of specifications available from address above.

• **38640—TURKEY** — Directeur General, Office National de l'Eau Potable (ONEP), B. P. Rabat-Chella, has issued tender no. 1/DP/T/76 for supply of 19,290 water meters, with spare parts and repair and calibration equipment. Bid deadline Oct. 6. Copy of specifications available free from Division Exploitation, Bureau des Marches, D.P., ONEP, Quartier Administratif, Rabat.

Scrap materials

5093XXX—GREECE—Scrap metals. Ship broker specializing scrap metal from ship demolition. Interested in vessels of all sizes, preferably military surplus, for demolition & scrap use or possible conversion for commercial use. Preparer for imediate purchase of vessels for demolition at cost of up to $1 million. Costs for vessels for conversion will depend on size & condition. Reply to—Capt. Andrew Vomvoyiannis, Mng. Dir., Maritime Organization Center, 8 Naleon St. (Hilton), Athens 516. Telex 21-6403; tel 726-209.

5093XXX—JAPAN—Ferrous scrap, of heavy melting grade no. 1 and no. 2. Steel scrap for rerolling and cast iron scrap also required. Importer plans import about 30,000 MT/yr. in two or three lots. Imported scrap will be stored at Japanese warehouses in Osaka or Kobe and re-exported to S. Korea in shipments of 2,000-3,000 mt/lot. Trading firm established in 1954; employs 10. Exports ferrous scrap, plastic scrap, used construction machines, ladies' accessories, primarily to Asian countries, and imports and distributes leather goods. Reply to—Satoshi Saito, Gnl. Mgr., Trading Dept., Tomiya Shoji Co., Ltd., 3-18-16 Motoasakusa, Daito-ku, Tokyo 111. Cable Tomiyacomer Tokyo; phone 03-842-9151.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Floor covering mills, products

2279074—AUSTRALIA — Tufted and/or needle-punched, printed carpet tiles. Excl. distr. Co. covers Australia. WTDR in prep. Reply to—R. J. Allen, Sales Mgr., Neuchatel Contraction Co. (N.S.W.) Pty. Ltd., 782 Bourke St., Waterloo, N.S.W. 2017. Tel. 698-2411.

Women's, misses, juniors' outerwear

23393XX—NORWAY — Casual slacks, jeans & other typical women's, misses' & junior outerwear. Estb. 1976 as agent-importer of electronic watches, marketed through several clothing retail stores. Firm sees additional market for U.S. mfrd. outerwear for teenagers. Employs 12, sales 5. Write or call—Thorstein Berg, Benova A/S, Schultzgate 5, Oslo 3. Phone 02-465863.

Plastic products

3079071 — SWITZERLAND — Commercial plastics products for use in restaurant kitchens & snack bars—vegetable bins, etc. Market territory all Switz. Provides adequate post-sales service. Employs 25 with 6 salesmen. Recommended trade contact. Excl. rep. Reply to Theo Kneubuhler, Theo Kneubuhler & Co., Hirschmattstrasse 50, Ch-6002 Luzern. Cable Tekomp Luzern; tel 041/22 10 22.

Glass, glassware

3229237 — BOLIVIA — Interior lighting glassware. Correspond in Spanish. Reply to Jorge Tarabillo, Casilla 864, Santa Cruz. Cable Galta.

Pottery, related products

3261051—UNITED KINGDOM — China & earthenware, plumbing acces. & fittings. U.K. market leader of quilts, pillows & sleeping bags, with interests in mfg. & installation aluminum double glazing window frame units. Markets throughout U.K. mail order; retail & "shop within shop" outlets. Successful growth record & know-how in textiles & light engineering. Seeks diversification into above products. Also interested in joint venture & mfg. under license. Employs 350, incl. 9 salesmen & 60 shop personnel. Reply to—T. W. L. Kay, Mng. Dir., Fios Group Ltd., Greendykes Industrial Estate, Broxburn, W. Lothian, Scotland. Tel (050-685) 4811; telex 727102.

Fabricated structural metal products

3144698—IRELAND — Copper canopies for fireplaces, cookers, etc. Mfg. of light engineering products & interested in acquiring agencies for decorative copper canopies for sale to builders' suppliers. Formed 1975. Field staff 2. Reply to—P. M. Cawley, Mgr.-Dir., Glamcopp Enterprises Ltd., Ballymore, Craughwell, Co. Galway. Tel. 66834.

Special industrial machinery

3559589—THAILAND — Machinery to produce photo-albums, stencil sheets, carbon paper, pencils, ballpoint pens, staples, paper clips & typewriter ribbons. Requests c.i.f. prices, catalogs & general info. Reply to Liang Chaiwatanatorn, Mng. Dir., Chaiwatana Mfg. Co. Ltd., 895/59 Soi 3, Behind EGG Center, Patumwan, Bangkok. Cable Chaiwatana, Bangkok; tel 2520529.

Household appliances

36341XX—THAILAND—Electric fans, all types. Requests c.i.f. prices, catalogs & general info. Reply to—Liang Chaiwatanatorn, Mng. Dir., Chaiwatana Mfg. Co. Ltd., 895/59 Soi 3, Behind EGG Center, Patumwan, Bangkok. Cable Chaiwatana, Bangkok; tel 2520529.

36342XX—FRANCE—Electric razors & dry-shavers. Recently created as importer & distr. of household appliances, as well as hi-fi & radio-tv equip. Wants to extend sales organization gradually to all of France. Reply to—Mr. Bitton, Gen. Mgr., Croselec, 17 Rue Dobernai, 67000 Strasbourg. Tel 88-32.68.99.

Radio, television receiving sets

3651420—NETHERLANDS — Hi-fi equip. Est. 1925, staff 70. Bankers Amro Bank N.V., Weesp, Neth. Subsidiary of Geo. C. F. Kauderer Holding BV, located same address. Other subsidiaries are Amutronics BV, Muiden, de Muiderkring BV, Bussum, Amroh-Kauderer GmBH, Neuss, W. Germany. Moderate open account trading warranted. Reply to—F. Aland, Mgr., Amroh B.V., 76 Herengracht, Muiden, Netherlands. Cable Amroh; telex 15171; tel 02942/1951. Excl. agency and/or distr.

3651567—FRANCE — Home-type electronic kits to be assembled by consumer for radio receivers, tuners, amplifiers & other audio equip. Recently created as importer & distr. of household appliances, as well as hi-fi & radio-tv equip. Wishes to expand range of products by importing as distr. & possibly as agent. Reply to—Mr. Bitton, Gen. Mgr., Croselec, 17 Rue Dobernai, 67000 Strasbourg. Tel 88-32.68.99.

Electronic components, accessories

367907X — GERMANY Waveguides. Estab. 1965, fully owned sub. of Telonic Industries, Inc., Laguna Beach, Calif. Annual sales DM 2 million. Reply to—Horst Schlechter, Mgr., Telonic Industries GmBH, Alte Heerstrasse 31, 5400 Koblenz. Telex 08 624 77; tel 026-76081.

Electrical machinery, equipment, supplies

3699221—BOLIVIA—Electric lamp components. Also, wire & cord for electrical purposes. Correspond in Spanish. Reply to—Galta Ltda, Jorge Tarabillo, Casilla 864, Santa Cruz. Cable Galta.

Engineering, laboratory, scientific, research instruments

3811XXX, 38213XX—BELGIUM — Environmental testing equipment; gas analysis equipment; gas detection and measuring equipment; conductance measuring equipment. This trade opportunity was obtained incidental to U.S. Petrochemical Catalog Show at Antwerp, June 16. Corporation is importer-exporter of measuring & controlling instruments. Also producer of industrial safety devices, fire prevention equipment. 200 employees. Reliable firm. Reply to—B. J. Reyntjens, Mgr., Technical-Commercial Services N.V. Vandeputte, Provincieesteenweg 160-172, 2530 Boechout. Phone:

031/555 15 1; telex: 33808; cable: Safety-van Broechout.

3811341 — NETHERLANDS — Photogrammetic & geodetic equip. Rep. or lic. agreement for Benelux. Estab. 1902, employs 50. Operates own workshop & mfrs. marking & labeling devices, geodetic & medical equip. Has excellent facilities for after-sales service. Recommended as trading partner. Reply to—R. Kurvers, De Koningh B.V., Simon Stevinweg 48 or P.O. Box 347, Arnhem. Tel 085-629019; telex 45830.

Manufacturing industries

3996061—AUSTRALIA—Vinyl floor covering in sheet form; must be 9 to 12 ft. wide. Co. covers Australia. WTDR in prep. Reply to—R. J. Allen, Sales Mgr., Neuchatel Contraction Co. (N.S.W.) Pty. Ltd., 782 Bourke St., Waterloo, N.S.W. 2017. Tel 698 2411. Excl. distr.

UNDP Country Programs Approved; Copies Available

At its 22nd session in June, the Governing Council of the United Nations Development Program approved Country Programs for Brazil, Bulgaria, Jordan, Nicaragua, Panama, Venezuela and Zaire. The programs are 2 to 5-year plans for projects for which the country requests assistance from UNDP. Projects are identified in the report and later emerge as individual trade opportunities.

The Export Information Reference Room of the U.S. Department of Commerce has a limited number of copies of these Country Program reports, available on a loan basis only. To borrow any of the seven reports, send a self-addressed label with request to the Export Information Reference Room, Attn: Betty W. Patrick, Office of Export Development, Room 1063, U.S. Department of Commerce, Washington, D.C. 20230. Copies are also available for review at Commerce District Offices in Atlanta, Boston, Chicago, Cleveland, Dallas, Denver, Detroit, Houston, Indianapolis, Los Angeles, New York, St. Louis, San Francisco and Seattle.

Firms and organizations interested in pursuing UNDP projects are urged to subscribe to *UNDP Business Bulletin*, a free monthly publication that announces project opportunities in connection with subcontracting and equipment procurement. Write The Editor, UNDP Business Bulletin, 345 East 46th St., New York, N.Y. 10017. Also available is *UNDP Business Guide*, which explains how to participate in UNDP project activities; the latter may also be obtained from Commerce's Export Information Reference Room.

Japan To Host Engineers

The Tenth Congress of the International Association for Bridge and Structural Engineering, the leading international association in structural engineering, will be held in Tokyo Sept. 6-11. This year's Congress will be the first held in Asia, and the sponsors are seeking to attract as many visitors from abroad as possible.

The Congress will feature exhibitions, films, and technical sessions. Prospective attendees are requested to contact the Secretariat of the International Association for Bridge and Structural Engineering, ETH-Hoenggerberg, CH-8093 Zurich, Switzerland.

Iran Considers Purchasing U.S. Mobile Training Units

The Ministry of Labor and Social Affairs, Imperial Government of Iran, is considering purchasing in the United States a number of self-contained and fully-equipped mobile units for use as centers for intensive training in vocational skills.

Mobile training units for training in skills such as automotive mechanics, electro-mechanics, machine trades, and construction trades may be required. Vendors shall additionally supply all training hardware and software, including instructional aids and audio-visual equipment, and shall provide training (in the U.S.) to teams of Iranian instructors in the assembly, operation, and maintenance of training hardware and instructional equipment. However, vendors will not be required to offer "teacher training" (pedagogical skills) as such.

Initially, the Government of Iran plans to select one or more firms from which it will purchase several units each. The selection of a firm or firms from which additional units may be purchased in the future will be competitively and objectively based on the relative quality of contractor services and on the on-line performance of their mobile units.

Companies interested in receiving prequalification information should contact: Dr. Everett R. Warzecha, 2 Sun Life Park, 100 Worcester St., Wellesley Hills, Mass. 02181, tel. 617-235-7020.

Romania Sets Bid Dates On Hydro-Power Project

The IBRD has granted Romania a U.S. $50 million loan for purchasing materials and equipment for the Ruil Mare-Retezat hydro-power project. The project includes a dam, two 167.5MW generating sets, and two 7MW generating sets.

The materials and equipment still to be supplied and dates of the tender opening follow: construction equipment, second stage—Sept. 22; power transformers—Nov. 10; steel for tunnel linings—Dec. 15; electrical equipment for primary and secondary commutation—Feb. 4, 1977; automation and remote control equipment—Feb. 9, 1977; mechanical equipment for dams and secondary intakes—Jan. 12, 1977; turbines and generators—Jan. 19, 1977; dam monitoring instruments—Jan. 26, 1977.

Bidding documents can be obtained for a fee from Mrs. Mariana Giosanu, Romenergo, Boulevard U. Laeul Tei, WR One Bucharest, telephone 12-13-26, telex 011525.

Future Construction Abroad

BRAZIL—The government has expressed desire for U.S. direct investment, technology and capital equipment and has provided a list of projects in which participation would be welcome. Projects include: **mining; electric power; petrochemical and fertilizers; non-ferrous metals, and steel mills.** The list of projects is available from U.S. Dept. of Commerce, TOP, Rm 2321, Washington, D.C. 20230, 202-377-2251. OPIC.

INDIA—IDA has approved an $18 million line of credit to finance an **integrated cotton development project.** Total area of 183,000 hectares in three representative Indian cotton-growing areas of Haryana, Punjab and Maharashtra. Includes evolvement of new cotton varieties; breeding and multiplication of improved seeds; modernization of cotton seed ginning and processing facilities; adoption of improved insect and disease control measures. Total cost is $36 million including foreign exchange component of about $13 million. While a breakdown of foreign exchange expenses is not available, a small portion is proposed to be utilized for importation of high-wheel tractor sprayers, baling presses, acid delinting equipment for cotton seed processing, ginning machines and laboratory apparatus. Specifications of above machinery and equipment have not yet been determined. Import will likely be made by contacting foreign suppliers either directly or through local agents. Project will be jointly implemented by State Department of Agriculture, Agricultural Universities, India Council of Agricultural Research and Ministry of Agriculture. Official responsible for project coordination is Dr. V. M. Sahani, Joint Commissioner (Cotton), Rm NBR 29, Krishi Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001. Dr. Sahani specifically requests product literature and catalogs from U.S. firms specializing in manufacture of high-wheel tractor sprayers. OPIC.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance to U.S. construction firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's construction insurance program, write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-1854.

INDIA—G. S. Harnal, Managing Director, Assam Petrochemicals Ltd. (APCL), is interested in locating a supplier of technology and equipment for local **manufacture of melamine.** APCL has received preliminary government approval for annual production of 5,000 metric tons LK melamine, and official clearance for foreign collaboration has also been obtained. Total cost of project estimated at RS. 105 million, of which foreign exchange component expected to be RS 35 million. Harnal prefers U.S. technology for closed cycle or total recycle process based on urea (not "once through" process for urea complex). By total recycle process he means off-gases discharged from melamine synthesis section converted into urea in small urea synthesis reactor integrated with melamine plant and fed back to melamine reactor. U.S. partner willing to supply technology and equipment for manufacture of melamine in Namrup Factory should contact G. S. Harnal, Managing Director, Assam Petrochemicals Ltd., Namrup 786621, Assam, or Assam Industrial Development Corp. Ltd., Zoo Rd., Gauhati 781001, Assam. OPIC.

GERMANY—One of Germany's largest department store chains, Karstadt A.G.,

is planning to construct a new **shopping complex** in West Berlin. The new store will be located in the city's northern district of Wedding in the French Sector near Tegel Airport. Construction is to begin in fall 1976 or early 1977. Estimated cost is $20 million. Will cover area approx. 13,000 sq. meters, and will be started from the ground up. Hoped that store will be open for business by 1978. Will require wide spectrum of building materials, supplies and interior furnishings over next two years. Examples are insulation, air-conditioning and heating systems, wall and floor coverings, light fixtures, movable interior walls, display cases, elevators and escalators and normal department store supplies. Metric specs. are preferable and all electrical equipment must meet European specs. of at least 220 volts, 50 hertz. Interested U.S. bidders and suppliers can contact procurement director at: Herr Direktor Hoseid, Karstadt A.G., Hauptverwaltung/Bauabteilung, Theodore-Althof-Strasse 1, 4000 Duesseldorf, Tel. (0211)-727-20-53; Telex 08-57-97-51. Communications on the West Berlin aspects, such as details on the site, can be directed to: Herr Guenther Burkert, Gen. Mgr., Karstadt A.G., Schloss-Strasse 7-10, 1 Berlin-Steglitz 41, Tel. (030)-79-10-51. Herr Burkert stated that the West Berlin management would very much welcome U.S. bids on all aspects of project.

ALGERIA—State Feed Monopoly is seeking qualified firms for construction of **ten centers for raising 50,000 hens per year each** (Tender #A0 11-76) and **five centers for egg production with starting capacity of 100,000 laying hens per year each** (Tender #A0-10-76). French tender documents can be obtained, at $24.17 each, from: Direction des Etudes et Realization, ONAB, 26 Blvd. Zirout Youcef, Algiers; Cable: ONAB ALGIERS; Tel: 52913. All correspondence must be in French. Deadline for submitting bids is Sept. 30. For additional information contact Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C., 20230, 202-377-4441. Also, please send copies of all correspondence to Pete Zantal.

MOROCCO—Ministry of Agriculture and Agricultural Reform is seeking qualified firms for preselection concerning a **feasibility study and studies for equipment relating to the Doukkala "Haut Service" irrigated perimeter** (approximate area 10,000 hectares). Water to be supplied from the existing Im Fout Diversion Dam on Oum er R'Bia River. Study will serve as a preliminary plan for development and must economically justify project. Send prequalification statements to: Office Regional de Mise en Valeur Agricole des Doukkala, Bureau des Marches, P.P. 58, El Jadida, Morocco. Correspondence preferred in French. Closing date for submittal is Sept. 15. For additional information contact Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C., 20230, 202-377-4441. Also, please send copy of all correspondence to Pete Zantal.

SYRIA—Egyptian consulting firm is seeking U.S. firms wishing to bid on **highway construction project** in Syria, to be four-lane highway with total width of 34 meters and five interchanges, to have design speed of 120-140 km/hr and asphalt roadway. Excavation is estimated at 9.5 million cubic meters. Interested firms contact: Amer Al Rustom, El Borque Trading Organization, 78 Gomhouria St., P.O. Box 1577, Cairo; telex: 2365 ALFCAI - UN, EXT 077 EGS; Phone; 912930-910462. Please send copy of all correspondence to: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C., 20230, 202-377-4441.

ALGERIA—State hydrocarbons and petrochemical monopoly, SONATRACH, is inviting offers for **extension of Hassi R'mel-Arzew gas pipeline number 40.** Will include construction of five compressor stations. Tender document (in French) may be obtained from: Direction Engineering Central, SONATRACH, 10 Rue du Sahara, Hydra, Algiers; Cable: SONEC DZ ALGER; Telex: 52375. A copy may be available in the office of Ms. Cherie Loustaunau, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-4441. Deadline for submitting offers is Oct. 1.

SAUDI ARABIA—Lebanese firm is seeking U.S. companies capable of supply and construction of **plant for freezing, rendering and processing 100,000-150,000 carcasses.** Plant must have high capacity in that animals are slaughtered in a 72-hour period. For additional information contact Pete Zantal, CAGNE/BIC, Washington, D.C., 20230, 202-377-4441.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Visiting Buyers & Officials

SWEDEN—Anders Magnusson of BM Import, Luthagsesplanden 9-A, S-75225 Uppsala, is interested in agency agreements for **ready-made clothes for men, women and teenagers,** particularly sports clothes, jeans, and leisure time clothes. He is also interested in **small electric kitchen and household appliances.** Magnusson will be in Los Angeles through Sept. 1. His U.S. mailing address is c/o Ernst Shima, 14810 Parron Ave., Gardena, Calif. 90249. He may be contacted there, in Sweden or through Terry Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

SOUTH AFRICA—J. F. Collett, Managing Director, CKF Instruments and Electronics (PTY), Ltd., Johannesburg, is visiting the U.S. for a month beginning in mid-August. He is seeking sources for **UHF/VHF equipment** covering: low band 30-50 MHZ; high band 148-174 MHZ; UHF 450-470 MHZ. The equipment should be frequency modulated in above bands and have power outputs of 25-30 watts and meet E.I.A. specs. Collett is also interested in equipment in the 27-29 MHZ regions similar to U.S. citizen band ranges as well as equipment for professional users such as South African post offices, railways, etc. The equipment should be single sideband in the region 2-16 MHZ, preferably solid state with power output in the region 50-100 P.E.P. and should also be wide-band aperiodic in output stages. He may be contacted through Terry Rettig, 202-377-3265.

AUSTRALIA—Peter B. Fowler, Manager, Compass International S.A., Sydney, is in the U.S. during August to seek new sources of quenched and tempered **steel plate** of 360-525 BNH hardness. He prefers to deal with producers rather than brokers. He may be reached through Terry Rettig, 202-377-3265.

AUSTRALIA—Ted Ashcroft, Director of Civil and Pipe Construction Pty. Ltd., Melbourne, is interested in establishing contacts for direct purchase and possibly an agency agreement for horizontal/under-road **boring machines** of any diameter up to three feet and **concrete pumps** for concrete grouting operations. He is also interested in purchasing **new technology in horizontal boring, cable, main and pipe laying and associated work.** Ashcroft also wants to discuss **new methods of housing construction.** He would prefer to talk with firms in the Los Angeles, San Francisco and/or Houston areas but will travel to other cities if interest warrants. For further information contact Terry Rettig, 202-377-3265.

TANZANIA—Dr. K. H. Patel, Director, Twiga Paper Products Ltd., P.O. Box 20192, Dar Es Salaam, manufacturers of paper bags and corrugated cardboard boxes, is interested in purchasing **corrugating machines for cardboard.** He will be in the U.S. until late August. His U.S. address is c/o J. C. Patel, 514 Lingerwood Ave., Elizabeth, N.J. 07202; he may be contacted there or through Terry Rettig, 202-377-3265.

TAIWAN—James Chi, Sales Manager, Central Enterprise Corp., Taipei, will visit the United States to purchase U.S. new machinery and equipment for his firm's expansion. He seeks **machinery for PVC wire injection and cutting, and equipment to manufacture electric sockets and plugs.** In 1971 this company was incorporated with capital of $79,000 for the purpose of manufacturing electric cords and wires. Sales volume is U.S. $500,000 per year. This visitor may be contacted directly or through Frederica Parks, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

TAIWAN—Don and Paul Chen, Managers of Taimico Industries Inc., Taipei, will visit the U.S. to develop new agency and distributorship arrangements for the sale of American-made **instrumentation and high grade valves for laboratory, petroleum, and chemical use** in Taiwan. Taimico Industries Inc. was established in 1974 as importer and exporter of instrumentation and valves, and is capitalized at U.S. $25,000. Tentative itinerary is: Atlanta, Aug. 15-19; New York, Aug. 20-27; Salt Lake City, Aug. 30-Sept. 3; Los Angeles, Sept. 5-10. These buyers may be contacted directly in care of Charlie Lee, 5123 Ball Rd., Cypress, Calif., 90630, phone 714-821-3610, or through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

AUSTRALIA—B. G. Douglas, Technical Director, Marko International Pty., Ltd., 14 Pilcher St., Enfield, N.S.W. 2136, will arrive Los Angeles, Sept. 7, proceeding to Chicago Sept. 9, then flexible for 12 days. His interest is **household and personal safety equipment, marine hardware, swimming pool hardware and accessories, and small household appliances and hardware.** Company also has metal manufacturing facilities and would consider any licensing opportunity. Interested firms should contact Foreign Buyer Staff, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230 for additional information.

IRAQ—Younathan E. Evan, Al Nidhal St., Tayaran Sq., Baghdad, plans to be in the U.S. for two or three months beginning the first of August. He would like to establish contacts with firms who manufacture **machinery for producing car cushion seats, insulating tapes, car dynamo armatures, hose clamps, disc brake pads and brake hoses for cars.** Interested firms should write him at Younathan E. Evan, c/o Harry Christensen, 6127 N. Springfield St., Chicago, Ill. 60659. For further information contact Terry Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

PAKISTAN—Mohammed Yaqub, Managing Director, Champion Paint Industries, Ltd., Al-Rehman Bldg., 65 Shahrah-E-Quaid-E-Azam, Lahore, Cable: Champaint, will be in the U.S., beginning Aug. 15, in the Denver area. He wants to purchase **machinery and equipment for a paint lab** as well as **raw materials for pigments and dry color, synthetic resins and solvents.** He may be contacted directly or through Terry Rettig, 202-377-3265.

ZAMBIA—Dante Saunders, a commission sales representative based in Lusaka, is interested in contacting suppliers of **ration food packs for military,** and **military uniforms, including socks, rain coats, etc.** He wants to be an agency representative on a commission basis. He plans to be in the U.S. for about 6 weeks beginning Aug. 28, and may be contacted through Terry Rettig, 202-377-3265.

MALAYSIA—N. H. Chew, Sereendex International, 18 Road 10 Kepong Garden, Kuala Lumpur, Cable: Dexereen, is interested in hearing from U.S. manufacturers of **promotional advertising items** such as key chains, ash trays, ball point pens, etc. He is also interested in distributing new-to-market products. He may be contacted directly or through Terry Rettig, 202-377-3265.

IRAN—E. L. Roshdiyet, President, IRWOT, P.O. Box 12/1619, Tehran, Cable 4311 Tehran, is interested in representing U.S. manufacturers of many products. He is especially interested in **anti-freeze, roofing and patching asphalt.** He would also consider **dairy and food products.** He may be reached directly or through Joseph Chini, 1506 Baylor Ave., Rockville, Md. 20805; 301-762-0221. Terry Rettig, 202-377-3265.

SWITZERLAND—Lucien Romang, President, Microtec Corp. and Microcrystal Corp., P.O. Box 5, 2416 Les Brenens, is interested in buying and/or representing in Switzerland and/or Europe **bonding and soldering equipment for microelectronics, epilame surface treatment equipment which prevents oil from creeping on metal surfaces, lapping machinery pastes and abrasives for polishing of sapphire and other substrates, ceramic powders for manufacture of precision mechanical and electronic parts, precious stones for manufacture of jewelry watches.** Terry Rettig, 202-377-3265.

FINLAND—A Finnish manufacturer planning a visit to the U.S. this fall is interested in meeting producers of **systems for crushing glass for recycling.** All replies should be sent to Terry Rettig address above.

HONDURAS—Gonzalo A. Rivera, representing Nacional Commercial S.A., a representation firm, will be in Miami area about Aug. 21 for a week. He wants to represent producers of **office and banking supplies, shelf hardware, auto parts and accessories, men's and women's shirts and blouses.** He may be reached through Terry Rettig, 202-377-3265.

Bolivians Inquire About Deep-Well Irrigation Equipment

The U.S. Embassy in La Paz, Bolivia has received an inquiry regarding deep well irrigation methods for cotton and wheat. The Embassy is interested in receiving the names of manufacturers of equipment related to deep-well irrigation. Interested firms should contact Foreign Buyer Staff, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230, 202-377-3265 for information.

Brussels Schedules Events

The Brussels International Trade Mart has scheduled seven "Market Weeks End 1976" events in September and November, showcasing furniture and ready-to-wear clothing. Information is available from Brussels International Trade Mart Square de L'Atominium, B-1020 Brussels

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Hartford, Conn., 06103, Room 610-B, Federal Office Bldg., 450 Main St. (203) 244-3530.

Honolulu, 96813, 286 Alexander Young Bldg., 1015 Bishop St. (808) 546-8694.

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Miami, 33130, Rm. 821, City National Bank Bldg., 25 W. Flagler St. (305) 350-5267.

Milwaukee, 53202, 605 Federal Office Bldg., 517 E. Wisconsin Ave. (414) 224-3473.

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Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

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Richmond, Va., 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

St. Louis, 63105, 120 S. Central Ave. (314) 425-3302.

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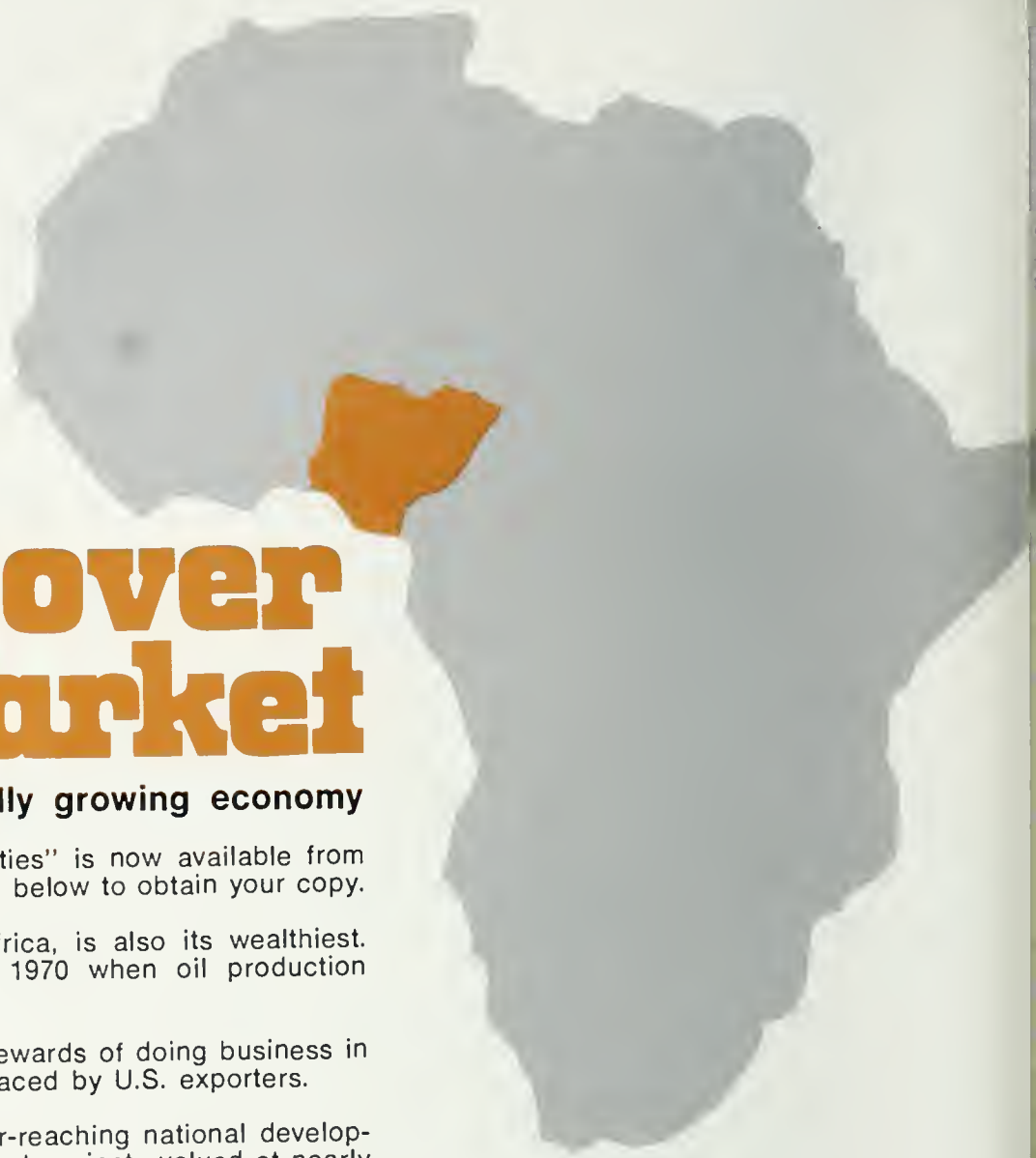

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Scientists, Economists Probe Earth's Protective Shield

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A new standard for mobile homes is gaining industry acceptance. Although the requirement set forth this summer by the Department of Housing and Urban Development will probably mean a price rise and this can hurt sales, it has countering advantages. Its uniformity is better than a tangled web of differing state restrictions and standards. It builds a better safety and quality image for mobile homes with customers, banks, insurers and zoning officials. It carries the appeal of energy conservation for heating and cooling. As to cost, meeting the standard could add about $250 to an average price ($12,000) mobile home.

Goodbye to toxic PCBs in transformers from Westinghouse. The firm has announced that it is making no new quotations for polychlorinated biphenyl-filled transformers to be shipped after the end of this year. Customers who have already ordered transformers for 1977 delivery are being queried on acceptability of substitutes, which could cost more. Westinghouse is the first manufacturer using PCBs as an insulator and coolant in transformers to schedule a phaseout. Federal legislation under way would set mandatory deadlines for the use in commercial products of the toxic chemicals.

Too little is known about the impact of foreign-controlled industry on U.S. communities. That's the bottom line in a recent U.S. General Accounting Office study of such activity in the Carolinas. The 41-page report, touching on the experience of Spartanburg County, S.C. (37 foreign firms have sites there), Mecklenburg County, N.C. (62 foreign firms) and Kiawah Island, S.C. (purchased by Kuwait interests), is available for $1. Write to the U.S. General Accounting Office, Distribution Section, P.O. Box 1020, Washington, D.C. 20013, asking for "Impact of Foreign Direct Investment: Case Studies in North and South Carolina." (See also the foreign investment article on page 7.)

Who are the foreign investors now operating plants in the U.S.? A comprehensive listing of more than 2,500 such firms, headquartered in 39 foreign nations, has been compiled by Thomas J. Pierpoint of Commerce Department's Bureau of International Commerce. The 58-page compilation, entitled "Foreign Direct Investors in the United States," is available upon written request to Bureau of International Commerce, Room 4020, U.S. Dept. of Commerce, Washington, D.C. 20230.

The beverage industry carries the American image to people everywhere. Nearly half of the world's consumption of soft drinks is in U.S. brands—Coca-Cola, Pepsi Cola, 7-Up, Canada Dry, Crush, and others—reports the trade publication "Beverage World" in a recent study of international markets. The global penetration by major U.S soft drink producers started in 1906 with the establishment of Coca-Cola's first overseas franchised bottlers in Cuba and Panama.

The Inter-American Development Bank is getting important support from outside the Hemisphere. Nine nations: Belgium, Denmark, West Germany, Israel, Japan, Spain, Switzerland, the U.K. and Yugoslavia have joined the bank and four others: Austria, the Netherlands, Italy and France, are in the process of doing so. This culminates five years of negotiation by the IDB to strengthen its multinational character. In monetary terms, the new members will supply $870 million over three years to the bank for use in the Hemisphere's developing nations.

World Trade Center Baltimore, a new silhouette on the U.S. trade scene, has its first tenant. It is the Canton Co., which operates a marine terminal in Baltimore and does export packing, stevedoring, steamship agency work, warehousing and railroading. The trade center is a 30-story, five-sided office structure, still under construction. It is owned and operated by the Maryland Port Administration, an agency of the Maryland Department of Transportation. Tenants will move in early in 1977, according to present plans.

Hong Kong emphasized its strong trade ties with the U.S. in saluting our Bicentennial. A delegation from the Chinese Manufacturers' Assn., the oldest and largest industrial organization in Hong Kong, came to Washington recently to present a Bicentennial commemorative plaque to the U.S. Government. It was received by Leonard S. Matthews, Assistant Secretary of Commerce for Domestic and International Business. Matthews, in turn, presented a U.S. Peace and Commerce medal to P. Y. Wong, who led the visiting group.

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COVER: Ozone studies, as our story beginning on page 4 explains, are testing, among other things, the validity of the theory that man-made chemicals are being injected into the stratosphere in quantities that could seriously deplete present-day ozone levels.

.S. DEPARTMENT
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GNP Statistics Reflect Change From Rapid To Moderate Growth

Economic Highlights is prepared by John W. Kendrick, Chief Economist of the Department of Commerce with staff economist Leslie Small.

John W. Kendrick

The U.S. economy expanded at an annual rate of 4.3 percent during the second quarter of 1976, about one-half the rate of the first quarter. As suggested in an earlier article, the unusually rapid pace of the first quarter could not be expected to continue, especially since it was bolstered by a pronounced swing toward inventory accumulation. Thus, a much slower rate of expansion is not surprising even though inventory accumulation in the second quarter was larger than originally estimated. The average rate of growth for the two quarters was 6.8 percent, a pace that is much more likely to be sustained than the 9.2 percent rate of the first quarter.

Since rates of change in Gross National Product are likely to vary widely from quarter to quarter, it is important to view any given quarter in the context of the pattern over a longer period of time. Furthermore, there are periodic revisions in the GNP estimates as firmer data become available.

GNP in terms of current prices has been rising sharply since the second quarter of 1975 (see Chart 1). GNP expressed in terms of 1972 dollars (which eliminates the effects of inflation) also has been increasing at a brisk pace. By the second quarter of this year, real GNP was 1.4 percent higher than the peak of the previous economic expansion, which was attained in the fourth quarter of 1973. On a per capita basis, however, real GNP is still somewhat less than the peak level of the third and fourth quarters of 1973, as shown in Chart 2.

Each July the Bureau of Economic Analysis revises its GNP estimates for the previous three years. These revisions incorporate many detailed reports and data from other sources that were not available, or did not exist, when the preliminary GNP estimates were made. For example, the preliminary second quarter estimates, which were first released in July and revised in August based on complete quarterly data, will be revised again next July when more detailed annual data from the Internal Revenue Service, state governments and other sources become available.

The largest change in the latest three-year revision was the $17.5 billion increase in current dollar GNP in 1975. The larger proportion of this change was attributable to the rate of increase in prices, which rose 0.7 percent more than had been estimated. Real GNP for 1975 was 0.5 percent higher with the largest revisions occurring in personal consumption expenditures, state and local government purchases and residential construction.

The revisions did not greatly affect the profile of the recession and recovery. The percentage decline in real GNP during the trough quarter in 1975 was slightly less than had been estimated on the basis of the benchmark revisions in January 1976. Similarly, the highest quarterly rate of price inflation was not quite as bad as had been estimated earlier. (See Chart 3.)

Since the recession trough in the first quarter of 1975, real GNP grew at an annual rate of 6.7 percent through the second quarter of 1976. Compared to the last four economic recoveries, the current upturn is stronger than those beginning in 1960 and 1970, but slightly weaker than those which started in 1954 and 1958. The current recovery is more buoyant than the 6.5 percent average for similar time periods in those recoveries as a whole.

Some components of GNP were revised in opposite directions. Personal consumption expenditures were stronger and business fixed investment weaker than had been estimated. In the national income accounts for 1975, compensation of employees was revised upward, principally due to state and local employees. Corporate profits were revised downward by $8.7 billion. For the years 1973-1975, the property share of income was also revised downward and the labor share was revised upward.

In a similar fashion, personal spending and saving patterns were changed in opposite directions. For 1975, disposable personal income was increased 4.2 percent while personal outlay was raised 9.2 per cent above earlier estimates. The resul was a decrease in the personal savin rate from 8.3 percent to 7.8 percent. Fo the first quarter of 1976, the estimate personal saving rate was reduced fro 7.6 percent to 6.9 percent. There was slight increase to 7.1 percent in the sec ond quarter.

Chart 4 compares changes in thre components of GNP to the change i total GNP, all in 1972 prices, based o the latest data revisions. For clarity, th chart does not show changes in net ex ports or government expenditures. Onl changes in personal consumption expend tures, fixed investment, and inventor investment are compared to the chang in GNP. Since the beginning of 1975, th largest changes in GNP have been asso ciated with large changes in inventor investment. During the same period, wit the exception of the latest quarte changes in consumption have been mor than three times as important to th change in GNP than have changes i fixed investment.

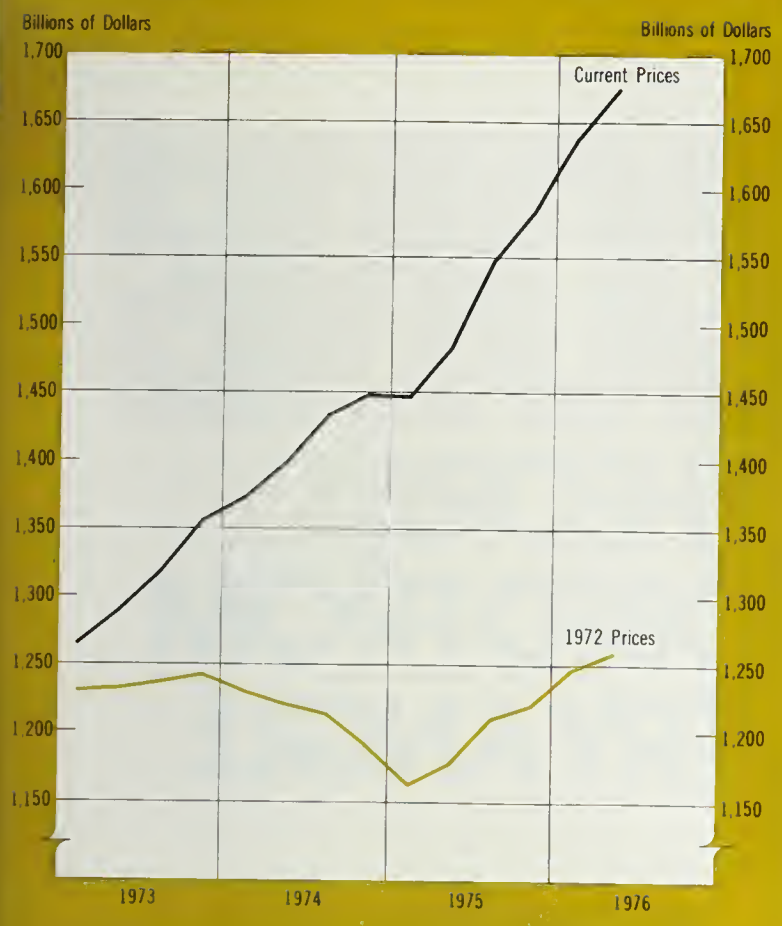
In regard to the immediate future, nor of these three components of GN appears likely to provide a strong stimu lus to growth, although the timing o an expected acceleration in fixed inves ment is uncertain.

The data available for July and earl August suggest that the increase of re GNP in the third quarter will again b moderate. But, the year may still en on an upbeat if business management revise upward their plans to increas fixed investment. This seems likely i view of rising rates of utilization of cap city, steadily increasing cash flow, an the decline of interest rates since June

The expansion would be further rein forced if consumers begin spending mor freely. July personal income took a jum of almost $14 billion (at a seasonall adjusted annual rate), but retail sal dropped slightly suggesting a significa rise of personal saving. With continu increases in disposable personal incom a reduction of the personal saving ra could result in accelerated gains in co sumption spending. But we will not kno if this scenario proves to be the corre one until several more months ha passed.

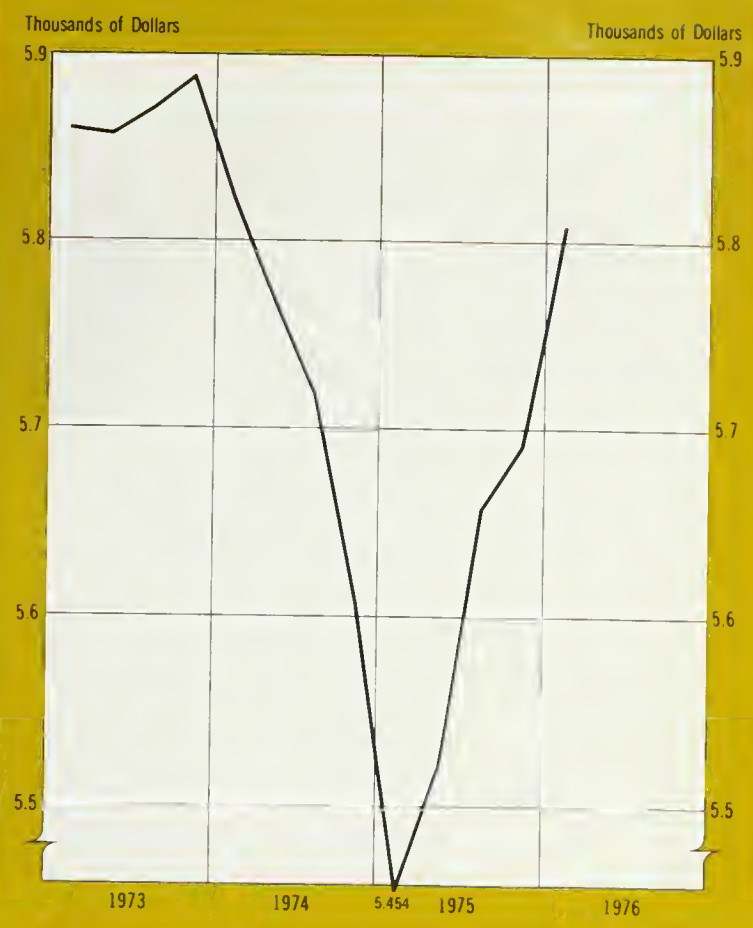
Gross National Product

1



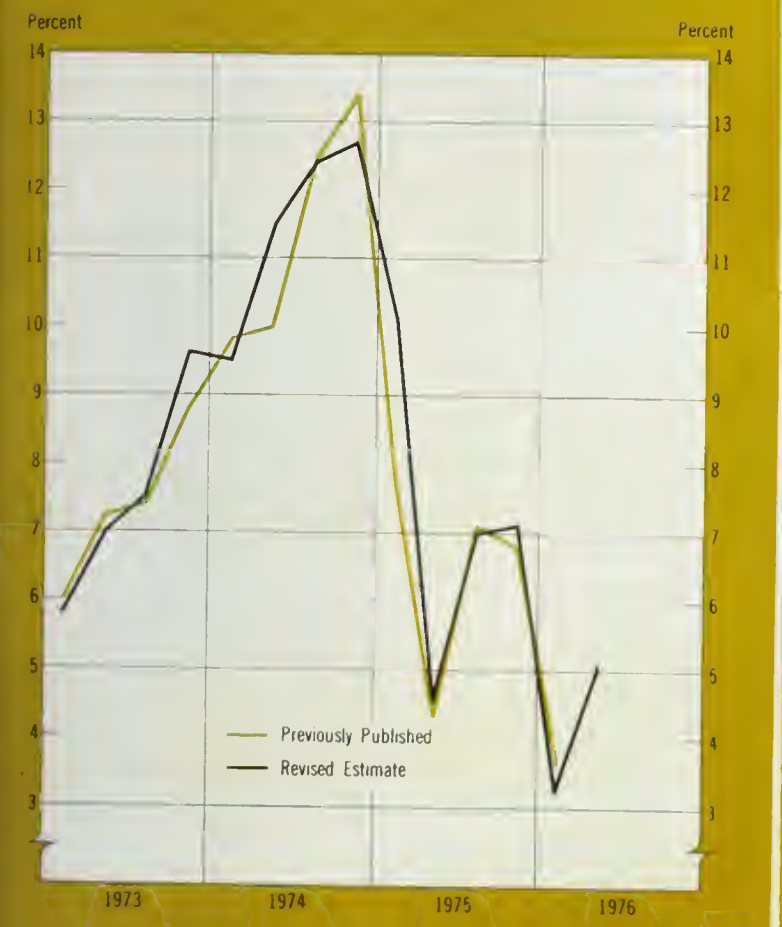
Real GNP per Capita, 1972 Prices

2



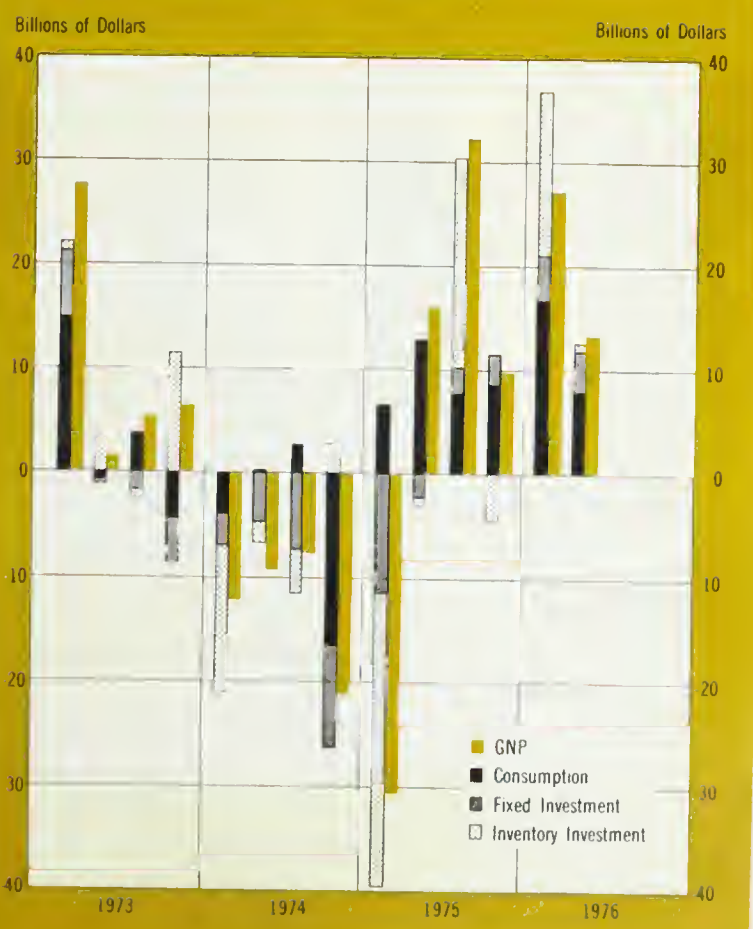
Change in GNP Deflator

3



Change in GNP and Selected Components

4



All data are seasonally adjusted annual rates

OZONE

THEORIES PROBED FROM EVERY ANGLE

Scientists and economists of the Commerce Department are finding common interest at the edge of earth's atmosphere — one looking to humanity's physical welfare, the other to industry's well-being.

While some Commerce scientists theorize that the earth's protective ozone shield has already been drastically depleted at least once, with fatal results for some species, others are busily testing the validity of the theory that man-made chemicals are being injected into the stratosphere in quantities that could seriously deplete present-day ozone levels.

Meanwhile, Commerce economists are studying the likely economic impact of restrictions on the production and use of materials suspected of endangering the ozone shield.

Recent findings by researchers with Commerce's National Oceanic and Atmospheric Administration (NOAA) and the National Center for Atmospheric Research indicate that the biological consequences of a weakened stratospheric ozone shield may have been fatal for some forms of life in the distant past.

About 700,000 years ago the earth's magnetic field almost disappeared as it decayed toward a reversal of polarity, a phenomenon which appears to happen every few hundred-thousand years. A millenium or two later, the reversed magnetic field regained its normal strength.

But during this magnetic nap, some marine life forms seem to have disappeared.

NOAA and NCAR scientists at Boulder, Colo., have now advanced a plausible mechanism for this puzzling "faunal extinction" during geomagnetic polarity reversals. It is a celestial triple play, in which the weak magnetic field, large solar flares, and chemical reactions in the high atmosphere combine to destroy the stratospheric ozone layer, admitting the sun's hard ultraviolet radiation to the earth's surface.

It appears that current concern about possible destruction of stratospheric ozone may be well founded, since it is possible that past ozone depletions have had a profound effect on some forms of life.

The scientists have proposed a compelling scenario to explain this apparent connection between the disappearance of life forms and the depleted ozone layer during a period of reversed magnetic polarity.

It begins with the earth's magnetic field declining toward its polarity reversal. Normally, the geomagnetic field lines would deflect incoming energetic particles toward the earth's magnetic poles. But near the time of the polarity reversal, earth's geomagnetic guard is down.

Then a large solar flare occurring during the thousand-year interval of the reversal would shower the earth with solar protons carrying energies ranging from 10,000 to a billion electron-volts. Without a strong magnetic field to deflect them poleward, the particles would directly bombard the entire planet.

Still, the earth's second line of defense—the stratospheric layer of ozone that blocks out the sun's biologically damaging ultraviolet radiation—would be intact.

But not for long, the Commerce researchers say.

Their recent work has demonstrated that energetic solar particles and cosmic radiation (particles from outside our solar system) set off chemical reactions in the high stratosphere that produce large quantities of nitric oxide, a voracious chemical.

Once introduced into the stratosphere, nitric oxide becomes part of an extremely efficient ozone-destroying cycle, in which virtually no nitric oxide is lost.

Normally, the geomagnetic field would restrict this nitric oxide production to high geomagnetic latitudes. But with the field nearly gone, this production would occur over much of the globe. The scientists calculate that solar flares comparable to those of August 1972, occurring during geomagnetic reversal, would produce enough nitric oxide to reduce stratospheric ozone by nearly 10 percent, and that flares 100 times that large would cause almost a 50 percent reduction in the ozone layer.

Thus weakened, the ozone shield would admit the strong ultraviolet rays of the sun.

Biological species that had evolved over the preceding several million years of geomagnetic stability might be unable to survive.

Since the next magnetic reversal is not expected until sometime between the 40th and 50th centuries, the ozone depletion aspects of the theory obviously are of more immediate concern to 20th Century Americans.

In this regard, NOAA is sponsoring a series of balloon flights to sample the concentrations of possible ozone-destroying materials in the stratosphere.

Data from these probes, which are originating from Antarctica, the Panama Canal Zone, northwestern Canada, and Laramie, Wyoming, will be analyzed for fluorocarbons 11 and 12, nitrogen oxides, and some chlorine compounds. These materials are key ingredients in the complicated process which some scientists believe destroys ozone in the stratospheric layer.

Probes of this type were among the first to obtain "hard" evidence that chemically inert fluorocarbons-11 and -12 (used mainly as refrigerants and aerosol spray propellants) migrate into the stratosphere almost intact, at altitudes above about 50,000 feet, ultraviolet radiation breaks them down, releasing chlorine atoms that then attack the ozone. Because the destruction is a cyclic one, each chlorine atom can destroy tens of thousands of ozone molecules.

As the probe descends through the stratosphere, a minicomputer directs the sampling valves to open at different altitudes. This obtains gas samples which permit scientists to calculate how fluorocarbon and nitrogen-oxide concentrations change with altitude, an important element in determining their effects on the ozone layer.

According to Dr. Arthur L. Schmeltekopf, who

. . . current concern about possible destruction of stratospheric ozone may be well founded . . .

. . . fluorocarbons and fluorocarbon-based products are of major significance to the U.S. economy.

leads the Aeronomy Laboratory's stratospheric sampling program, evidence obtained thus far with the balloon flights seems to confirm the major features of the ozone-depletion hypotheses.

Although this is primarily a natural ozone-limiting process, the NOAA scientists want to measure the chemical quantities involved to see whether human activities have begun to accelerate the natural cycle.

In an encouraging development, a Commerce scientist recently concluded that a substance that had been cited as a possible threat to the ozone layer really wasn't affecting it very much.

According to NOAA's Dr. Paul J. Crutzen, the projected use of nitrogen fertilizer presents little immediate danger of large ozone reductions.

The real problem, he said, is human ignorance.

At the same time that it creates ozone, the sun also creates its chief destroyer, nitric oxide, mentioned above.

Some researchers had predicted dire consequences from the increased worldwide use of nitrogenous fertilizers, envisioning reductions of the ozone layer by as much as 30 percent.

Dr. Crutzen used a numerical model of the atmosphere to calculate the effects on the ozone layer of increased input of fixed (chemically-combined) nitrogen to the soil. He found little evidence to support the fears. There are already about 1400 million tons of nitrogen in the form of nitrous oxide in the atmosphere, he pointed out, and the 40 million tons of fertilizer now annually spread on the soil adds only about two million tons of nitrous oxide to the atmosphere.

"It does not seem likely that there will be an imminent danger of serious ozone depletions due to an increase in the application rate of fertilizer in the soils," he concluded. But the Commerce Department scientist cautioned that there could be long-term effects.

Perhaps the main point his studies demonstrate, Crutzen said, is how little is known about the global aspects of the nitrogen cycle. For example, oceanographers' estimates of how much fixed nitrogen is added to the oceans by natural processes differ by a factor of a thousand.

Actual measurements by a German group have shown that a given parcel of nitrous oxide injected into the atmosphere stays there only about 10 years before being destroyed, the scientists said. But so far, the only known process by which the chemical is destroyed—reaction in the stratosphere—takes 100 years. So there must be another destruction process, or "sink," at work that scientists have not yet discovered, he said.

In light of the publicity being given to the ozone question, the Commerce Department continues to point out that fluorocarbons and fluorocarbon-based products are of major significance to the U.S. economy. The Department is concerned that the production and use of fluorocarbons not be curtailed or limited by federal or state regulation until available scientific research is sufficient to determine their effects on the earth's stratosphere.

The Commerce Department is concerned abou protecting the earth's environment, but it is als concerned about possible premature or unwarrante restrictions on the production and use of fluoro carbons. These chemicals are important to th national economy, and existing scientific data ar not yet sufficient to determine the effects tha fluorocarbons are having on the earth's atmosphere Americans must also realize that the issue canno be settled by U.S. action alone, since about 50 per cent of all fluorocarbons are produced and use outside the United States.

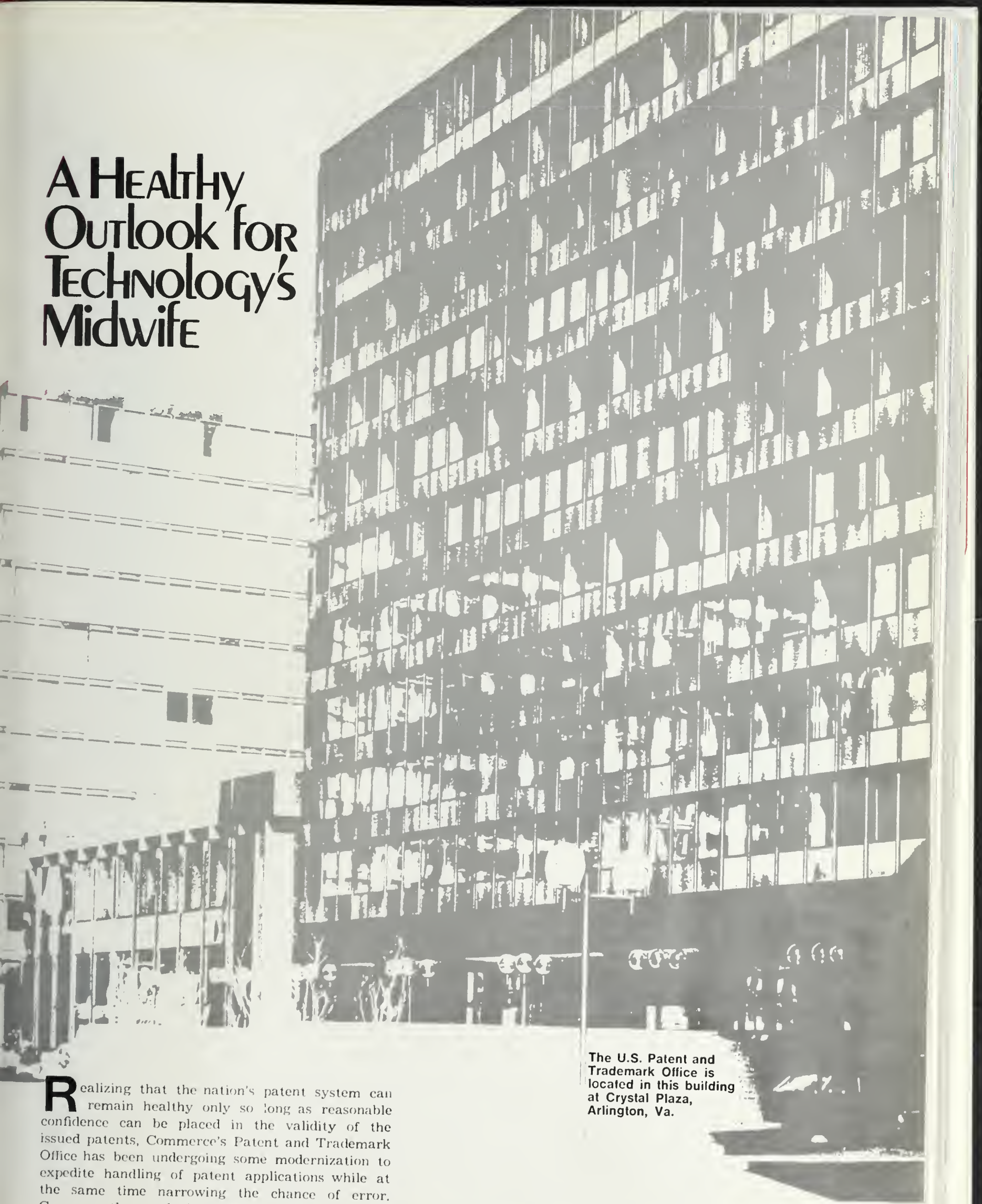
A study by the Department's Bureau of Domesti Commerce on the economic significance of fluoro carbons, found that five industrial sectors coul be directly impacted by federal or state restriction on fluorocarbons: primary fluorocarbons manufac turing; air conditioning and refrigeration manufac turing and service; aerosol formulation; aeroso containers and valve manufacturing, and plastic manufacturing.

The staff report offers information on fluorocar bon products employment, investment, value o shipments, and provides the following highlights:

- The value of fluorocarbons produced by U.S manufacturers in 1974 was more than $500 million and amounted to almost 50 percent of total world wide fluorocarbon production, or about 1.1 billio pounds.
- Almost 600,000 U.S. jobs, with a payroll estimated at $6.7 billion, directly depend on the production and use of fluorocarbons. Further, there are perhaps 1.5 million additional workers whose employment indirectly depends on fluorocarbon products and applications.
- No practical substitutes exist for the fluorocarbons now used in air conditioning and refrigeration systems, and acceptable substitutes for many fluorocarbon-based products would take years to develop. Several companies, however, are developing substitutes in areas where they are feasible such as in aerosol spray applications.
- Installed refrigeration and air conditioning equipment which must use specific fluorocarbon products to operate has an estimated installed value in excess of $100 billion in the United States alone
- A number of special processes and applications such as the sterilization of surgical material and sanitizing of operating rooms, rely principally on fluorocarbon-based products.

A full schedule of federally-sponsored scientific research is now under way to ascertain to wha extent fluorocarbons may be affecting the earth' stratosphere. This schedule of scientific data acquisition and analysis provides ample time for the future formulation of fluorocarbon regulations i the theory of fluorocarbon ozone depletion proves valid. Consequently, the Department of Commerce recommends that any regulatory action to limit the production and or use of fluorocarbons should awai the completion of ongoing federal research. ☆

A Healthy Outlook for Technology's Midwife



The U.S. Patent and Trademark Office is located in this building at Crystal Plaza, Arlington, Va.

Realizing that the nation's patent system can remain healthy only so long as reasonable confidence can be placed in the validity of the issued patents, Commerce's Patent and Trademark Office has been undergoing some modernization to expedite handling of patent applications while at the same time narrowing the chance of error. Consequently, marked strides have been made in

reducing the enormous backlog of patent applications.

Today, with four million patents awarded U.S. inventors since enactment of the 1790 patent act, the patent system still offers the best avenue by which to solve the nagging national problems of finding new energy sources, the more efficient use of older energy sources, and controlling the environment, to mention but a few. The patent right has been a powerful incentive to invention, thus a major factor in the progress of the industrial revolution.

Each application for a patent is examined in the Patent and Trademark Office to determine whether it meets the legal requirements for awarding a patent. One of the requirements is that the concept be novel, and that it should not be obvious to a person of ordinary skill in the technology to which it applies.

The Patent and Trademark Office has the task of searching all prior knowledge, wherever it may be found, to determine the matter of novelty and non-obviousness. As the body of knowledge increases, so does the search task. The files to be searched now contain more than 20 million patent documents of U.S. and foreign origin.

"Much effort," says Commissioner of Patents and Trademarks C. Marshall Dann, "is going into improvement of the examiners' search files. Studies have shown various parts of the file to have anywhere from 2 to as high as 28 percent of the documents missing at a given time. We would like to conduct a complete inventory of the U.S. and foreign patents on file, replace the missing copies, and then keep the file complete from then on."

. . . new security regulations have recently been put into effect for the Public Search Room.

For at least the next several years the main search effort must continue to be in the manually searched paper files of documents. Accuracy and completeness of this file is therefore of great importance. To insure this, significant efforts are now being made to upgrade and maintain the integrity of the file.

An extensive program for checking the search file has begun on a pilot basis. Among the objectives of the program is the verification of the accuracy of filing of the documents, correction of the basic reference listings or catalog, and replacement of documents missing from the file.

To protect the file, and to help make it and keep it complete, new security regulations have recently been put into effect for the Public Search Room.

The first change is that admission to the Search Room is by pass. In addition, electronic sensing is installed which is supposed to tell the guards if anyone leaving the Search Room is removing, inadvertently or otherwise, any marked search material, such as files or patent copies.

"The new procedures," Dann says, "undoubtedly will be something of an aggravation to users of the Search Room, but we will try to make it all reasonably painless. Those who abide by the rules should have no trouble getting and keeping a pass.

"It is, of course, to everyone's interest that the files be as complete as possible and we know that substantial numbers of patents do disappear. Some of these, of course, are merely misfiled. Until the system has been in effect for a while we won't know just how effective it is in preserving the integrity of the file, but we hope it will be worth the effort and the inconvenience."

In recent years, more than 100,000 applicatior for patents have been filed each year. This grea volume of applications and the expanding searc file created a backlog of crisis proportions in th early 1960s.

The average time required to process an appl cation until it matured into a patent was 3 months, an intolerable delay. In the last 10 year the time has been reduced to less than 20 month: which is close to the ideal pendency period. Thi result has been achieved through streamlined pr cedures, improved management, and extra effo on the part of the staff of the Patent and Trad mark Office.

For the fiscal year ending in June 1976, th Office received 102,656 applications and dispose of 106,960 cases. This was the tenth year in a ro in which the overall backlog declined.

"More than half of the applications are receivin their first actions in less than five months aft filing," Dann explains. "More than 40 percent c all the applications issue or become abandoned i less than 16 months and more than 80 percent ar disposed of in less than two years. Only 4 percer are pending longer than three years.

"There is still a substantial backlog of appeale cases, but the situation is much improved over las year. The number of applications awaiting a d cision from the Board of Appeals declined durin fiscal year 1976 from a peak of 5,164 to 4,326."

Dann says the patent copy service "still leave much to be desired, both in speed and reliability c the service and in the quality of the patent copie supplied.

"Within about six months," he adds, "we expec to have the first units of some new copy equi ment in operation that should greatly impro the quality of the copies. A number of changes i procedure also are under way which should spee up the service and avoid some of the errors and th failures to fill orders. These will not happen suc denly, but I really believe there is going to b progress. Similar improvements are taking plac in our handling of mail, though again we have long way to go."

While working to bring the backlog down t manageable proportions, the Office also faced th need for maintaining a high quality examinatio process. Patents issued by the Office must b likely to be upheld when challenged in court i people are to invest time and money in research, d velopment, and commercialization of inventions o the prospect of patent protection.

The Office believes the quality of patents no issued ranks with the best of any country in th world. Still, ways are being sought to conduc better examinations. As the backlog is bein brought under control, quality improvement i getting top attention.

"The most recent effort in this direction," Dan says, "has been to change the examiners' pr duction goals so as to give them, on an averag basis, 6 percent more time than before for th examination of each application. At the same tim all of the individual goals are being revised, wit the participation of the examiners concerned, i an effort to get rid of at least some of the i equities, as between different examiners.

"The Office-wide average time for examinin each case is set by the Commissioner in line wit

the requirements of the work-load and of the resources available. For the average examiner, the goal has now been set at 19.5 hours per application. The difficulty and complexity of examining, however, varies quite a lot in different parts of the Office. The setting of individual goals, consistent with the overall Office average goal, is subject to negotiation with the Patent Office Professional Association (POPA), the union that is the exclusive bargaining agent for examiners. Last month we finally reached agreement with the union on this subject after four years of negotiation."

One recent innovation has been a formal quality review program in which a review board randomly selects and checks a sample of allowed applications for quality examination. When a sample reveals a weakness in one practice or procedure, appropriate measures are taken to remedy the problem area.

Within the last year this program was increased so that a sample of 4 percent of the allowed applications is now drawn. Among the items checked by the review staff is the important matter of whether a complete and proper search of prior documents was made.

This check tells whether the correct parts of the search file were searched and also whether the search was thorough in those parts. An evaluation also is made to determine whether allowance of the application was appropriate in view of the closest prior references discovered as a result of the search.

The experience has been that some application defect is discovered in about 7 percent of the applications reviewed.

In many foreign countries patents are thrown open to public inspection and possible protest before or immediately after the patent is granted. The U.S. Patent and Trademark Office is now engaged in such a program on a trial basis.

In this program applicants grant permission for their allowed applications to be published before the final grant. The public then has the opportunity to oppose the final grant by citing references to show that the patent should not be granted.

Results gleaned from the first published samples showed that about 9 percent of those published for opposition did in fact draw an opposition response from the public and that about 5 percent of the applications that were published have been rejected under the program.

"We do not yet have final results on the second trial Voluntary Protest Program," Dann explains. "But it is clear that this time somewhat fewer of the applicants decided to allow their applications to be published and considerably fewer of the published applications were opposed, less than 5 percent. The final results will be published in due course. I doubt if we repeat this as an experiment, though conceivably we could conclude that it would be made a permanent program."

The efficiency and accuracy of the search made by the examiners of the prior recorded technology is at the heart of the patent examination system. Anything that improves the search is of great importance in that it has a direct bearing on the quality of the entire examination process. If the best references are not found and found promptly, the process suffers.

The Patent and Trademark Office over the last 15 years has conducted a substantial amount of research in the attempt to find ways to mechanize the search operation on the assumption that the search would be improved. Experimental systems have been developed ranging in complexity from the simplest needle-sort systems involving a few hundred patents to sophisticated computer-based systems.

At present a pilot system involving a high-speed computer-controlled microfilm search system has been installed and is being tested for searching some of the patents in one examining group. Also, on a pilot basis, a computer terminal has been installed for use by examiners in searching commercially available data bases of technical literature other than patents.

The file size and complexity, number of searches, and depth of the search all complicate the attempt to mechanize the search process. The conclusion from all this experience seems to be that at least for the present there is no one mechanical system that can economically and effectively satisfy the search needs of the Patent and Trademark Office.

. . . no one mechanical system can economically and effectively satisfy the search needs of the Patent and Trademark Office.

A search file of the size of that in the Office must have a sophisticated classification system to provide for efficient and accurate search and retrieval of pertinent references for any subjects investigated. To insure that the classification system is efficient, a sizable staff devotes continual effort to reclassifying the patent files.

As new technologies emerge and develop, new classifications must be created to keep pace and provide for changing search patterns. As old fields of search become overcrowded, the old classifications must be revised to provide easier access to pertinent documents.

C. Marshall Dann, Commissioner of Patents & Trademarks (second from right) talks at a New Orleans trade conference with (from left) Edwin A. Leland, Jr., director, Commerce's New Orleans District Office; Maurice G. Anderson, senior vice president, Kalvar Corp.; Ronald B. MacIntyre, vice president, Kalvar Corp.; and Ludvik Cerny, president, Chamber of Commerce of Czechoslovakia.

The Patent and Trademark Office classified files are not static. Rather, they are continually growing and changing just as technologies change, develop and expand. Last year, for example, a record 150,000 patents were reclassified to provide new fields of search and keep pace with changing technologies.

This year the figure will be even higher. This reclassification system is the basic tool for determining whether or not a proposed invention is deserving of a patent. It is important, therefore, that adequate resources are assigned to the task of maintaining and improving the search facilities.

The Patent and Trademark Office expects to continue to serve the public during America's third century by being midwife to the birth of new technology which will be as significant to the national well-being as the great developments of the past. ☆

Where

Foreign Interests Are In U.S. Industry

As they move into the U.S. industrial scene, are foreign investors supplying significant signals on areas of probable future American growth? Or do their acquisitions or establishment of affiliates here simply reflect their prior interests abroad?

A bit of both, is the answer that emerges from a recently published study of foreign direct investment in the United States by the Commerce Department. For example, lively activity by foreign enterprises in the U.S. chemical industry appears to indicate a belief from abroad that outstanding growth possibilities exist in this industry. At the same time, a closer look at this activity shows heavy involvement in dyes, pharmaceuticals and synthetic fibers, areas of special strength and sophistication abroad.

The Commerce Department study examines, among other things, the "Industrial and Geographic Concentration of Foreign Investment in the United States." With regard to the overall foreign presence, it is quickly apparent that the word "concentration" hardly applies. Only about 2 percent of U.S. manufacturing can be regarded as foreign-controlled. At the broadest single industry levels—defined in such terms as food industry, automotive industry, chemical industry—the amount of foreign control rises to no more than 6 percent, except in petroleum refining. When the focus becomes narrower, as on newsprint or on the production of ballpoint pens, the term "concentration" assumes significance. Here the foreign interest can reach 25 or even 50 percent.

Foreign-owned manufacturing operations are widely distributed geographically. The greatest number, as might be expected, are in the most industrialized states. A sizable group, mostly recent entrants, have located in the Southern states. An important element in the decisions to locate there is the aggressive effort by these states to attract new industry.

Alaska and Hawaii, whose foreign investment patterns were examined more intensively than those of the other states, have numerous recent Japanese investments. In Alaska, these are centered in resource-related industries, particularly forestry and fisheries. In Hawaii, the emphasis has been on hotels and tourist facilities. But in both states such activity was found to constitute only a minor portion of total investment.

Among the industrial giants—U.S. firms with annual sales (1974 figures) of over $1 billion—10 fit the Commerce Department description of foreign-owned, that is, they have 10 percent or more foreign ownership. Two of these are 90 to 100 percent foreign-owned. Among companies with 1974 sales exceeding $100 million, 91 are foreign-owned.

Foreign-owned manufacturing firms run the gamut from those having 40 or 50 plants scattered across the country to those operating from a single site. The latter typically have between 50 to 100 employees and are situated either close to major customers or to raw material sources.

European, Canadian and Japanese companies dominate foreign investment in manufacturing. The widely publicized investments that followed upon the Middle Eastern petrodollar boom do not appear to have been channeled into U.S. manufacturing. Although European producers are the largest single group of foreign investors, a number of well-known European multinational firms so far have established only a modest beachhead in the U.S.

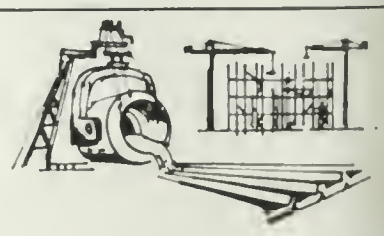
Important transfer of technology into the U.S has followed foreign investment in such manufacturing fields as synthetic fibers, textile machinery and dyestuffs. However, a variety of patterns occurs in the inward and outward flow of technology. In certain primary industries, technology is in worldwide equilibrium and there is little need for any international flow. In other cases, the foreign-owned subsidiary in the U.S. views itself far ahead of the foreign parent. Such a U.S. operation, even a small one, often acts as a "window" on superior U.S. technology for the company abroad.

In the energy field, foreign-owned firms accounted for an estimated 13 percent of total U.S. refinery capacity in 1974, 10 percent of total gasoline sales, 7 percent of petroleum production, and 4 percent of natural gas production. In other fields affecting U.S. resources, such as minerals, forest products and food, foreign participation is not large nationally though significant in some localities. For a few mineral products, not critical to the economy, foreign ownership is large. About half of U.S. exports of grain are handled by U.S. affiliates with foreign ownership.

In the regulated business sectors, banking and insurance, foreign investment is important but not large in total terms. Foreign banking activities have grown rapidly in recent years and are expected to continue to grow. Foreign insurance operations, mostly carried out by long-established European and Canadian firms, have not shown similar growth. They now constitute a smaller share of foreign investment in the U.S. than in the 1960s.

The following profiles by industry are selected from a study prepared for the Commerce Department by The Conference Board:

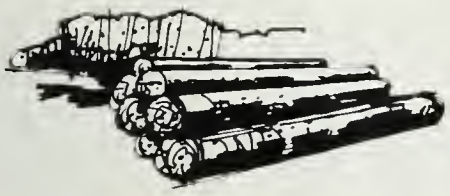
Metals



Here foreign-owned facilities currently occupy a small place, but interests abroad are looking to the U.S. for future expansion, considering the high use of energy in this industry. In primary steel production foreign influence is seen mainly in imports and technology. In primary aluminum five of the 12 U.S. producers, with about 20 percent of capacity, are wholly or partially foreign-owned. Of 92 secondary aluminum smelting plants, five have foreign participation; there are 54 other foreign-

owned facilities among the several hundred U.S. plate aluminum rolling mills and plants making semi-finished products.

Forest products



The extent of the foreign presence in the lumber, plywood, wood products, and pulp and paper industries is seen as no more than 2 or 3 percent overall. There are two categories of foreign investment here: Japanese, motivated by resource needs; British or Canadian, made to service a single North American market from both sides of the U.S.-Canada border. Lumber, pulp and newsprint are traded duty-free, so resource availability determines many plant locations. For other wood and paper products, subject to tariffs, marketing and transportation costs often determine the production sites.

Food processing

Foreign-owned firms in this major manufacturing field are estimated to account for less than 6 percent of total industry shipments. There is a concentration in a few lines—tea, candy, crackers, cookies, frozen foods, margarine and liquor. There are some familiar firm names in this field, a number of them long established in the U.S.: Seagram, Lever Bros., Nestle, Lipton, Cadbury, Brown & Williamson, and more lately, Keebler and Baskin-Robbins.

In this field the U.S. affiliates produce items for U.S. consumer markets, and these markets are not always identical, in tastes, packaging, distribution points, etc., to the markets serviced by the foreign parent. Hence the opportunity for provision of management services, marketing techniques, and technology by the parent is not always as great as in other industries where the products are nearly identical internationally. Thus the statistics on amount of foreign ownership in this field may overstate the amount of day-to-day control exercised from abroad.

Chemicals

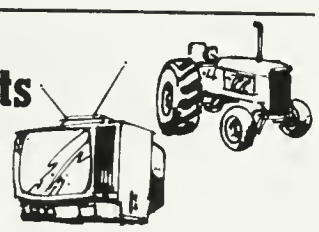
The sheer size and diversity of the United States chemical industry makes it difficult to assess the significance of foreign investment. In terms of the total U.S. industry, production by foreign-owned firms is relatively small, although within the manufacturing area the chemical industry has attracted the largest amount of foreign investment in the past decade.

In subsectors of the industry foreign investment is large, both in absolute and in relative terms. It is estimated, for instance, that of the total U.S. dye consumption in 1975 of about $520 million, roughly 50 percent was supplied by foreign firms—20 percent by imports and 30 percent by foreign-owned operations in the United States. Production by such companies in this country is partly explained, at least until recent years, by high tariff rates on dyes and lower rates on the intermediates. Thus, foreign firms were encouraged to establish manufacturing facilities here to produce dyes from imported intermediates.

Contributing to the growth of foreign-owned facilities for the manufacture of dyes in recent years was the slower increase in labor costs in the United States as compared to some European countries. Some foreign executives contend that when output per man hour, wages, and fringe benefits in Europe and the United States are compared, labor costs here now are comparable to those in Europe, and thus not the obstacle to U.S. production that they were in the 1960s.

In the pharmaceutical field, approximately 20 foreign-owned firms manufacture in the United States. Sales by these operations, together with imports of pharmaceuticals, are estimated as supplying about 25 percent of the U.S. market. Since imports are fairly small, foreign-owned production here accounts for a substantial portion of the 25 percent. In the man-made fibers segment of the chemical industry six wholly or partially foreign-owned companies were identified in the study. They account for about 26 percent of total U.S. capacity.

Machinery and electrical products



Major foreign-owned firms in the machinery field include producers of farm and construction machinery, bearings, textile machinery and pollution control equipment. In farm machinery, the two largest producers are U.S.-owned, but the third, a subsidiary of a Canadian firm, accounted for about 8 percent of industry sales in 1974 and a larger percentage in some specific product lines. In construction machinery and equipment, a major foreign-owned producer has a 4 to 5 percent market share, but for some narrowly defined types of equipment its market shares range from 8 to 15 percent.

The precise number of foreign-owned firms manufacturing textile machinery in the United States is difficult to estimate since some foreign firms act merely as importers. However, the manufacturers are believed to be fewer than 20. Their share of total U.S. shipments may range as high as 10 percent, with about two-thirds of that share accounted for by a single foreign-owned firm acquired by U.K. interests in 1973.

Major foreign investments also have taken place

in consumer electronics, consumer electrical products, and electronic components. For many years a growing share of the consumer electronics market was served by imports. Since 1971, however, when the dollar was first devalued, foreign production for the U.S. market has slowed and inward investment has accelerated. Two Japanese firms recently acquired or established major U.S. manufacturing facilities for television sets, color tubes, and hi-fi equipment. Foreign-owned firms are also producing a number of consumer electrical products such as vacuum cleaners, air conditioners, and incandescent and fluorescent light bulbs. Foreign producers of electronic components also established U.S. facilities, but industry experts stress that none of these is a major factor in the United States, in terms of either market shares or technology.

Automotive

Foreign participation in the United States automobile industry is primarily through imports. In 1975 foreign cars captured 18 percent of the U.S. market. The first major foreign-owned automotive assembly plant in this country (Volvo of Sweden) is under construction and scheduled to start operations in 1977. A second major foreign car-maker (Volkswagen of Germany) has decided on the establishment of a U.S. assembly plant and Japanese and Italian investments of this type may follow. Industry sources estimate that by 1982 as much as 5 percent of the passenger cars sold in the United States may be produced by foreign-owned firms operating here. Two Japanese automotive firms have established limited assembly operations for light trucks. Firms with foreign participation also are active in automotive parts and accessories, such as tires (7 to 8 percent of the replacement market), batteries, fuel injection devices, and catalytic converters.

Construction

Foreign presence in the United States construction industry is most pronounced in such areas as construction engineering and construction-related manufacturing, i.e., building supplies and equipment, and cement. A number of foreign-owned firms also are active in design technology and process licensing, primarily in highly specialized fields, such as the chemical and petroleum industries. While the largest of the foreign-owned construction companies ranks only 45th if the U.S. construction industry is considered as a whole, it ranks near the top of the process-engineering firms.

In the U.S. cement industry, which consists of about 55 companies and 177 plants, 4 to 5 percent of 1974 capacity was accounted for by firms with some degree of foreign ownership. These firms' shares, however, are higher in regional or specialized product markets.

Retail trade

Most activity from abroad has taken place in the last five years, although there was some foreign presence earlier. Several well-known U.S. retailers have passed wholly or partially into foreign ownership, but such ownership accounts for only a small share of the total U.S. retail industry. A recent listing of the 50 leaders included three with foreign equity participation. Collectively they accounted for 3.5 percent of the 50 retailers' sales, and for less than 0.2 percent of total U.S. retail sales. In food retailing, foreign investment is concentrated in five firms having about 3 percent of total U.S. food sales and about 6 percent of supermarket sales. Two foreign-owned department stores accounted for slightly more than 2 percent of U.S. department store sales in 1974. ☆

Earlier articles about the Commerce Department report to the Congress, "Foreign Direct Investment in the United States," were published in the May 10 and July 5 issues. The complete nine-volume report is available from the Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402.

Volumes 1 and 2, the Secretary of Commerce's report, comprising the general analysis, conclusions and recommendations, and a 132-table benchmark statistical survey, are being offered as a unit at $6. The other volumes, containing 18 appendices, may be purchased for $30.25 or at the following individual prices:

Volume 3, on Industrial and Geographic Concentration of Foreign Direct Investment (the source of the accompanying article), $4; Volume 4, on five areas: Energy, Selected Natural Resources, Commercial Fisheries, Grain Trade, and Banking, $2; Volume 5, on Investment Motivation, Financing, and Management and Labor Practices, $7.

Volume 6, on Taxation, $4; Volume 7, on Federal and State Law, $5.40; Volume 8, on Foreign Investment in Land, and Land Law, $4, and Volume 9, on Policies and Laws of Other Countries, Transfer of Technology, Accounting, Federal Agency Sources of Data, and a Bibliography, $3.85.

In ordering, mention the following Stock Numbers: Vols. 1 and 2, 003-010-0044-9; Vol. 3, 003-010-0045-7; Vol. 4, 003-010-0046-5; Vol. 5, 003-010-0047-3; Vol. 6, 003-010-0048-1; Vol. 7, 003-010-0049-0; Vol. 8, 003-010-0050-3; Vol. 9, 003-010-0051-1.

Two other recent studies in this field are cited in the "Newsmemo" column on the inside front cover of this issue.

Energy Digest

SPOOKY STORY . . . A "Phantom" is solving the case of the conserved kilowatts in some of California's halls of higher education. This Phantom is a non-lighting tube which replaces one of the normal fluorescent tubes in the standard two-tube fixture. The remaining tube operates at about 70 percent of its normal illumination, producing a net saving of about two-thirds in power used, with an illumination level of about a third of that from a normal two-tube fixture. The Phantom is designed primarily for hallways, corridors, storage rooms and other areas that often are over-illuminated. They actually save more power than would be saved by simply removing one tube, because the empty ballasts continue to use electricity. Caltech has installed about 3,000 of the phantoms on its campus, with 2,000 more to come, and expects annual energy savings of $35,000 to result. Tests conducted by Developmental Sciences Inc., of City of Industry, Calif., indicate that in addition to lasting indefinitely, the phantom tube also prolongs the life of the standard bulb it is used with. Preliminary tests at Commerce's National Bureau of Standards also were positive. Developmental Sciences is the first licensee to produce the tubes in volume.

THINKING SMALL . . . Small businesses will play a bigger role in procurement, research and development under the Energy Research and Development Administration's programs for coping with the energy problem. A recent agreement between ERDA and the Small Business Administration provides that SBA Regional Offices will establish direct liaison with ERDA Field Organizations within their respective geographic regions. Specific procedures for carrying out joint projects will be developed by each combination of SBA Regional and ERDA Field Organization.

RECYCLING STACK GAS . . . Engineers at ERDA's Pacific Northwest Labs at Richland, Wash., are taking another look at the energy potential of the carbon monoxide in gases which have been blowing out of phosphorus and aluminum factory smokestacks in the area for decades. One possible use for the CO would be to replace natural gas in making methanol and other industrial fuels, which now must be shipped 2,000 miles to the region because it has no natural gas. Supplying the area's plywood and particle board industries alone with such locally-made methanol would save more than six million cubic feet of natural gas per year. Other areas of the country where carbon monoxide producing industries are located near plants that produce or use hydrogen, methane, methanol, ammonia or urea could also benefit from the study.

SOLAR JOBS . . . Solar heating and cooling could mushroom into a $2 billion a year industry by 1990, according to a Stanford Research Institute Study. The Sheet Metal Workers' labor union commissioned the report which states that about $250-$300 million would become wages for the sheet metal workers who now install air-conditioning systems. A study by Mitre Corp. predicts the need for additional jobs in "retrofitting" older structures for energy conservation.

BACK TO THE PYRAMIDS . . . A comprehensive study of an ancient technology—the flywheel—which might solve modern energy problems is available to U.S. business from ERDA. Energy that is used to start any kind of wheel rotating on its axis becomes, in effect, "stored" in the wheel. In a flywheel, energy that might otherwise be wasted could be stored and then withdrawn at any time to perform useful work. The report pays special attention to use of flywheels in industry, transportation and electric utilities. Order copies of Economic and Technical Feasibility Study For Energy Storage Flywheels for $10 each from the Superintendent of Documents, Washington, D.C. 20402. Refer to GPO stock no. 052-010-00486-7.

SQUIRRELING IT AWAY . . . ERDA recently awarded two contracts to the Institute of Gas Technology in Chicago for studying systems to store and distribute energy. Under one contract, components of a natural gas distribution system will be operated by hydrogen gas. Scientists believe that, for many purposes, hydrogen may be a practical substitute for natural gas. The IGT study is part of a five-year effort to determine whether hydrogen could be delivered to customers through an established distribution system. Another contract calls for IGT to study the feasibility of storing thermal energy in molten carbonate for use in helping meet peak demands for electric power. Under this concept, heat energy could be generated by solar, nuclear or coal-fired power plants and stored for conversion to electric power when needed through such means as a conventional steam generator.

Domestic Business Report

Will There Be Twice As Many Of Us In 2015?

DEVELOPING COUNTRIES LEAD IN POPULATION GROWTH, WHILE UNITED STATES, CANADA DECLINE

Although population growth in the United States and Canada is declining, the world's population will soar from the present estimated 4 billion to 8 billion in another 39 years if the global annual growth continues at the existing rate of 1.8 percent, according to Commerce's Bureau of the Census.

A report on the world population in 1975, published by the Bureau's International Statistical Programs Center, and funded by the Office of Population, U.S. Agency for International Development, explains that the present rate of world growth is due mainly to continued population expansion in developing countries.

In the last quarter century, the report says, world population rose 1.5 billion, or 57 percent, with four-fifths of the growth taking place in developing regions. The result was that the share of world population in less developed regions advanced from 66 percent in 1950 to 72 percent in 1975.

In 1974, the average birth rate in less developed regions was more than twice that of the developed regions. Meanwhile, death rates since 1950 have fallen faster than birth rates in less developed areas.

In consequence, the average population growth rate of these areas increased from 1.8 percent annually in the 1950-55 period to 2.2 percent annually in 1970-75. In the more developed countries, the average annual growth rate declined from 1.3 to .8 percent in the same period.

The following is a continent-by-continent breakdown of population trends as shown in the new Census report:

Northern America: The population growth of this region, which consists mainly of the U.S. and Canada, has declined steadily since 1950, dropping to .9 percent annually in 1970-75. The U.S., with a 1975 population of 213,631,000, had in 1974 a birth rate of 15 per 1,000 population and a death rate of 9 per 1,000, resulting in an annual growth rate of .8 percent. By comparison, Mexico, with a 1975 population of 59,238,000, had a 1974 birth rate of 43 to 45 per 1,000 population and a death rate of 9 per 1,000, resulting in an annual growth rate of 3.4 to 3.6 percent, highest of any major nation.

Latin America: This area has had since 1950 the highest annual growth rate of any continent, rising to 2.8 percent in 1970-75. Excluding temperate South America, which includes Argentina, Chile, Falkland Islands and Uruguay, and is regarded by the United Nations as a more developed region, the population of Latin America doubled from 139 million to 283 million, between 1950 and 1975.

Since 1950, the population share of Latin America outside the temperate countries has risen from 5.5 percent to 7.1 percent of the world population. The comparable 1975 shares are 5.9 percent for Northern America, 6.4 percent for the USSR, and 11.9 percent for Europe.

Europe: Including the USSR, Europe had the lowest population growth rate of all world regions for the 1950-75 period, declining from 1.1 percent in 1950-55 to .7 percent in 1970-75. Europe is the largest of the more developed regions. The USSR, with a 1975 population of 254,300,000 had a 1974 birth rate of 18 per 1,000 population and a death rate of 9 per 1,000, resulting in an annual growth rate of .9 percent. The United Kingdom, with a 1975 population of 56,075,000, had a 1974 birth rate of 13 per 1,000 and a death rate of 12 per 1,000, resulting in an annual growth rate of .1 percent The Federal Republic of Germany, with a 1975 population of 62,040,000, had a 1974 birth rate of 10 per 1,000 population and a death rate of 12 per 1,000, resulting in a zero growth rate.

Asia: The great continent's share of the world population increased to 57 percent in 1975. The annual growth rate in Asia is 2 percent But its large population base causes an absolute increase of nearly 46 million persons annually, or 64 percent of the total world population increase each year.

The People's Republic of China, with an estimated 1975 population of 842,545,000, had a 1974 birth rate of 24 per 1,000 population and a death rate of 10 per 1,000, resulting in an annual growth rate of 1.4 percent. India, with an estimated 1975 population of 613,957,000, had a 1974 birth rate of 36 to 39 per 1,000 population, and a death rate of 15 to 16 per 1,000, producing an annual growth rate of 2 to 2.4 percent. Japan, with a 1975 population of 110,944,000, had a 1974 birth rate of 19 per 1,000 population and a death rate of 7 per 1,000, resulting in an annual growth rate of 1.2 percent.

Africa: The annual growth rates in Africa have increased from 2.1 percent in 1950-55 to 2.7 percent in 1970-75. While death rates are still much higher than in other areas, their eventual decline portends further increases in the annual growth rates. Nigeria, with an estimated 1975 population of 63,022,000, had a 1974 birth rate of 48 to 50 per 1,000 population, and a death rate of 20 to 24 per 1,000, the highest in both cases for any major nation. The resulting annual growth rate was 2.4 to 3 percent.

Oceania: Australia, New Zealand, and other oceanic areas apart from Indonesia and the Philippines, had .5 percent of the world's population in 1975, unchanged from the proportion in 1950. The annual growth rate declined from 2.4 percent in the 1950-55 period to 1.9 percent in the 1970-75 period.

The Census Bureau comments that "reliable current data on population size and structure and the number of births, deaths and migrants are not available for a majority of the world's countries." In consequence, much of the statistical information in the new report is based on estimates from numerous sources.

"Demographers have used sample household surveys to obtain information on births, deaths and migration, although results from such sample surveys are themselves subject to a variety of errors which are often difficult to detect and quantify."

Copies of the report, *World Population, 1975 Recent Demographic Estimates for the Countries and Regions of the World*, ISP-WP-75, may be obtained for $3.90 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce district offices in major U.S. cities

Fire Prevention Grants Go To Improve Training, Education And Health

Thirteen states will share grants totaling $302,474 from Commerce's National Fire Prevention and Control Administration, for fire education and training.

Nine of the grants promote the development and production of statewide organizational designs for fire education and training. States approved for this type grant are Connecticut, Georgia, Louisiana, Missouri, South Carolina, South Dakota, Texas, Washington and Wyoming. Under the remaining four grants the states will produce comprehensive statewide fire education and training plans. States approved for these grants are Arkansas, California, Nevada and Oregon.

The grants, issued through the Administration's National Academy for Fire Prevention and Control under its academy planning assistance program, will encourage individual states to address education and training needs of national priority. The results of the grant programs will also assist the Commerce agency in anticipating future fire education and training needs nationally.

Through grants such as these, the Academy encourages the coordination of resources toward a common goal: the improved education and training of those involved in fire prevention and control.

Physical fitness studied

Another NFPCA grant will enable the International Association of Fire Chiefs Foundation to evaluate firefighter physical fitness programs nationwide. The $60,818 grant will be used to conduct a national survey of both paid and volunteer fire departments to identify types of physical fitness programs now being used in the United States. Eight to 10 of the most promising will be studied in-depth. The Administration hopes to thus identify programs that have resulted in reduced injuries and deaths in the dangerous profession of firefighting, and make these programs available to all parts of the country.

Recent studies have revealed that nearly half of investigated on-duty deaths of firefighters were attributed to cardiovascular accident (heart attack, stroke, congestive heart failure), and that only 18 percent of the men tested, in a survey of several hundred firefighters, were rated as being physically well-conditioned.

A report prepared at the conclusion of the study will be made available to the public.

BICENTENNIAL BOOK—*Commerce Secretary Elliot L. Richardson (right) receives a collector's item,* The History of the Star Spangled Banner from 1914 to the Present, *from William T. Knox, Director of Commerce's National Technical Information Service. This is one of several historical books in the NTIS Americana Collection, republished as a Bicentennial year tribute. Copies can be purchased for $13.50 from the NTIS sales desk (telephone 202-557-4650). Order number is PB 196 294/CZ.*

Canadian Vacation Travel To U.S. Increases

Canadians vacationing south of the border increased by 25 percent last year, according to Commerce's United States Travel Service. Pleasure trips by Canadians to the United States reached 2 million in 1975.

The U.S. share of the total Canadian vacation travel market continued to increase during 1975, indicating a recovery from the 1974 fuel shortages which affected travel volume from Canada. Travel to the United States accounted for 24 percent of the total vacation trips by Canadians, up from 22 percent in 1974.

Vacation expenditures by Canadians in the United States totaled $777 million in 1975, or about a 27 percent share of the total $2.9 billion Canadian vacation expenditures. Average trip expenditure in the United States by Canadian vacationers in 1975 increased 14 percent over 1974, from $570 to $650. The rise reflects inflationary cost increases and longer stays.

In general, Canadians vacationing in the United States were married (60 percent) and over 30 years of age (67 percent). About half were employed in professional occupations and had an annual family income of $15,000 or more.

Vacation travel to the United States by Canadians tended to be split evenly between summer and winter seasons in 1975. The average length of stay was 12.2 nights.

A summary fact sheet of USTS's *Vacation Travel By Canadians in 1975*—or information about the complete report, which will be available in the fall—is available from the Research and Analysis Division, United States Travel Service, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-4028).

Why Mickey Mouse's House Won't Burn

The Fire Retardant Chemicals Association will hold a conference October 18-21 on Fire Retardancy in the Construction Industry at Walt Disney World in Orlando, Florida, which will show off the extensive use of flame retardants in its construction.

The program will include: a symposium on tests and testing; specifiers' and insurers' view of fire in the construction industry; insulating materials and flameproof coatings; building components; and details of the fire prevention methods in the construction of Walt Disney World.

For further information, write: Fire Retardant Chemicals Association, 1001 Connecticut Ave. NW., Washington, D.C. 20036 or telephone 202-452-1531.

COOPERATION PAYS OFF—*Louisiana businessman Lyle Mouton (left) discusses his company's oil field equipment with LeRoy Roy (center) of AMOCO Production Company and Murray Poller (right), of Commerce's Maritime Administration.*

MANAGEMENT TIPS HELP BLACK-OWNED OIL FIELD SUPPLY FIRM HIT PAY DIRT

Black businessman Lyle Mouton's Louisiana-based "Circle M" oil field supply firm, which was started on a shoestring in 1973, is expected to gross $3 million in 1977. Mouton has signed a distribution agreement with National Pipe & Tube to service booming oil field markets in South Louisiana, East Texas and other sections of the country.

He credits his former employers at the Amoco Production Company's Lafayette, La., regional office for the initial push in establishing his own business. Although Mouton had left Amoco to join another company that made him and his computer-programmer wife a team offer, Amoco didn't forget him. Knowing of his capabilities and his desire to go into business for himself, Amoco executives gave him the encouragement and material assistance he needed to come back to Lafayette and start the Circle M business, which supplies drill bits, valves, fittings and other oil field equipment.

"At first," according to Mouton, "I pounded the pavement, calling on customers, delivering $6 orders with 10 percent markups at two o'clock in the morning to rigs out in the boondocks. I took all the little orders other suppliers didn't want to fool with."

The turning point came after Amoco began contacting oil-field tool manufacturers and pipe companies in his behalf. Then, Amoco agreed to pay for its purchases within ten days, so he was always 20 days ahead on his billings from suppliers (who operated on the usual 30-day payment cycle). This gave him valuable cash on hand. His suppliers include such well-known firms as Hughes Tool, Dresser Industries, Reed Tool and Smith Tool.

Reserve financing was achieved with help of the Acadiana Economic Development Corporation, a minority enterprise management and technical assistance firm funded by Commerce's Office of Minority Business Enterprise. Murray Poller, a U.S. Maritime Administration officer in New Orleans, also assisted Mouton with financial advice and business contacts, under an OMBE/MARAD minority business agreement.

His business financing accomplished, Mouton concentrated on expansion by attending seminars on oil field supply and by calling on Shell, Exxon, Marathon and other receptive customers. Mouton has a new warehousing facility under construction outside Lafayette, and his sister and a newly hired black pipeline engineer are opening a Houston office.

New Directory Of Franchise Opportunities Aimed At Minorities

Minorities seeking business ownership opportunities in the fast-growing franchise field can gain detailed information on more than 40 categories of franchising from an updated directory recently published by Commerce's Office of Minority Business Enterprise and Domestic and International Business Administration.

Franchise Opportunities Handbook identifies more than 653 franchisors who do not discriminate on the basis of race, color or national origin in the availability, terms or conditions of their franchises.

Other information contained in the extensive volume deals with the background of franchising in the nation, advice on investigating areas of possible interest by the franchisee, the code of ethics of the International Franchise Association, and various checklists to aid interested parties.

The book also contains nationwide listings and addresses of government and non-government assistance programs and agencies such as OMBE, U.S. Department of Commerce field offices, the Small Business Administration, Internal Revenue Service, Council of Better Business Bureaus and International Franchise Association. It also lists other sources of franchising information in selected books, pamphlets, periodicals and directories.

Commerce is making a special effort to disseminate this publication to minority groups.

Single copies of the *Franchise Opportunities Handbook* may be purchased for $3.60 (Catalog Number 210-801/340 1-3 1976) from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Limited copies of the directory are also available from: OMBE Information Center, 14th and Constitution Ave. NW., Washington, D.C. 20230.

Los Angeles Fire Units Host Conference

The Los Angeles City Fire Department, together with the Los Angeles County Fire Department, will host the Second National Conference of Commerce's National Fire Prevention and Control Administration, opening October 18 at the Hyatt House Hotel, L.A. International Airport.

The three-day conference will concentrate on fire prevention, and is being planned to assist fire departments nationwide in changing their emphasis from fire fighting to fire prevention. The conference will cover: a fire prevention proper mix; public education; building codes and design; inspection and enforcement; fire and arson investigations; and the implementation of fire prevention programs.

Both host fire departments have strong fire prevention programs.

NEW ELECTRICITY RATES GET ON-THE-SPOT TESTS

The Federal Energy Administration has selected eight investor-owned, municipal and rural electric utilities in California, North Carolina, Oklahoma and Puerto Rico to test rate reform, load management, and end-use conservation techniques.

Because electric utilities account for about 26 percent of the nation's total energy consumption, their importance as a factor in achieving national energy goals is apparent.

These projects are part of FEA's comprehensive national program to identify, demonstrate, and implement utility and consumer activities designed to improve efficiencies in the production, distribution and end-use of electricity. The program is based on balanced conservation and growth strategies for electric power designed to provide an adequate supply that is efficiently produced, equitably priced and prudently used.

The local government agencies are the utility companies taking part are:

—California Energy Resources Conservation and Development Commission and California Public Utilities Commission; Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric, and Sacramento Municipal Utility District.

—North Carolina Utilities Commission; Carolina Power and Light and Blue Ridge Electric Membership Corporation;

—Commonwealth of Puerto Rico; Puerto Rico Water Resources Authority; and

—City of Edmond, Oklahoma; Edmond Municipal Electric Company.

The California demonstrations will test time-of-use electricity rates for all customer classes. The study will also evaluate the potential for additional peakload control by means of a load management tariff. The final result will be an evaluation of the innovative rate structures used, and recommendations for possible future national adoption of such rates.

The North Carolina demonstrations will implement time-of-use electricity rates for all customer classes which will vary in structure and customer charges. Emphasis will be placed on the load-shaping effects of such rates as well as customer acceptance and understanding. The final results of this study will also evaluate the innovative rate structures used.

The Puerto Rico demonstration will measure the changes in customers' energy consumption in response to time-of-use pricing; analyze the distribution of impacts across different customer classes; determine the optimum load factors and the system-wide use of time-of-use rate structures; estimate utility and customer savings from the system-wide use of innovative rate structures, and utilize demonstration results in rate hearings and for changing electric tariff structures.

The Edmond, Oklahoma, demonstration calls for a research project of three non-traditional rate structures in comparison with the existing declining block rates. The results of the project will provide a measurement and analysis of changes in consumption patterns, consumer acceptance, and revenue under these rate structures by class of customer. In addition, the impact on various user classes and income groups, and the elasticity of demand will be evaluated.

Cities Eligible For $500,000 Each In Aid

As many as 12 cities will be the beneficiaries of grants of up to $500,000 as part of a federal demonstration program aimed at generating jobs in the private sector. Three government agencies—the Departments of Commerce, Lahor, and Housing and Urban Development—have extended an invitation to 31 cities to compete for the urban development funds. These agencies will provide the funding for the program.

The cities invited to compete are: Phoenix; Fresno, Long Beach, Los Angeles and Oakland, Calif.; Bridgeport and Hartford, Conn.; Atlanta; Chicago; Louisville, Ky.; New Orleans; Baltimore; Boston and Worcester, Mass.; Detroit and Flint, Mich.; Kansas City and St. Louis, Mo.; Jersey City and Newark, N.J.; Albuquerque; Buffalo; Cleveland, Dayton and Toledo, Ohio; Portland, Ore.; Philadelphia and Pittsburgh, Pa.; Providence, R.I.; Memphis; and Milwaukee.

The grants, in the amount of $250,000 per year for at least two years, are to be used for the planning, staffing and administrative support necessary to coordinate federal and local, public and private resources into cohesive local development efforts.

They are intended to stimulate action to maintain and enhance existing employment opportunities as well as produce new jobs for the low and moderate income groups.

A board of representatives from the three federal agencies will select the winning cities from those invited to compete, which were recommended by a panel of nationally recognized urban experts. The panel was appointed by the U.S. Conference of Mayors/National League of Cities and the National Council for Urban Economic Development.

The recipients will be announced by the end of September.

Register In Advance For Computer Symposium

Preregistrations for a symposium on Trends and Applications: Computer Networks, scheduled for November 19 at Commerce's National Bureau of Standards headquarters in Gaithersburg, Maryland, are now being accepted.

The symposium, sponsored by NBS and the Institute of Electrical and Electronics Engineers Computer Society Technical Committee on Computer Communications, will be preceded on November 16 by a tutorial session on computer networking.

For preregistration information on both the symposium and the tutorial, write: Computer Networks, P.O. Box 639, Silver Spring, Md. 20901.

Science Court Is Subject Of Sept. 19 Colloquium

A colloquium on the proposed Science Court has been scheduled for September 19-21 at the Xerox International Center for Training and Management Development near Leesburg, Va. The colloquium is sponsored by the Commerce Technical Advisory Board, the National Science Foundation and the American Association for the Advancement of Science.

The Science Court Experiment is intended to begin development of a procedure for finding the state of scientific fact so that the best factual basis is available for public policy-making on important controversial issues. It is proposed that this fact-finding will be built on experience in both the legal and the scientific communities. The proponents hope that the Science Court can provide a useful means for resolving technical disputes over questions of scientific fact.

The colloquium is co-chaired by Betsy Ancker-Johnson, Assistant Secretary of Commerce for Science and Technology, and Arthur Kantrowitz, Chairman of the AVCO-Everet Research Laboratory.

Applications for attendance and additional information may be obtained from Frank Cacciapaglia, Jr., or Florence S. Feinberg, Room 3864, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-5065). Completed applications should be received by September 5.

PERSONAL INCOME SHOWS STRONG GAIN IN JULY

Personal income increased $13.9 billion in July to a seasonally adjusted annual rate of $1,384.3 billion, according to the latest figures from Commerce's Bureau of Economic Analysis. The increase was the largest in 11 months, and followed a rise of only $7.5 billion in June.

Wage and salary disbursements increased $8.1 billion in July, following a $100 million decline in June. Payrolls in commodity-producing industries increased $2.0 billion in July; June payrolls were near the May level. Distributive industry payrolls increased $2.8 billion in July, following a $1.5 billion decline in June. Payrolls in service industries increased $2.4 billion in July compared with a $600 million increase in June. Government and government-enterprise wages and salaries increased $900 million in July, the same as in the preceding month.

Manufacturing payrolls increased $1.1 billion in July, compared with an increase of $400 million in June. The increase was entirely due to higher hourly earnings. The largest payroll gains were in machinery, food, and textiles. Fabricated metals and apparel payrolls showed sizable declines.

Transfer payments increased $5.7 billion in July, compared with a $300 million decline in June. About $4.6 billion of the July increase resulted from a cost-of-living increase in social security benefits. Dividend payments declined $800 million in July, compared with a $2.1 billion increase in June which was bolstered by an extra payment by a large automobile manufacturer. Farm proprietors' income declined $2.0 billion in July, compared with a $4.1 billion increase in the preceding month. Rental income increased $800 million, compared with a $600 million decline in June. The June decline was due to the damage caused to dwellings by the Snake River flood in Idaho.

On a regional basis, personal income in the first quarter of 1976 gained in 48 states. It rose fastest in Kentucky; there was a small decline in North Dakota, and practically no change in Nebraska, reflecting sharp declines in farm income.

In the seven fastest gaining states, the advance in seasonally adjusted personal income ranged from 3.5 percent to nearly 5 percent. In 36 states, the income gains ranged from 1.5 percent to just under 3.5 percent. In the remaining five states and the District of Columbia, the gains ranged from 1 to 1.25 percent.

Nationally, total personal income was up 2.5 percent, compared with a rise of 1 percent in consumer prices.

Total personal income consists of private and government wage and salary payments in cash and in kind, other labor income, farm and nonfarm proprietors' income, interest, net rents, dividends and transfer payments, less personal contributions for social insurance. It is measured before the deduction of personal income and other personal taxes and is reported in current dollars.

This and additional data appear each month in the *Survey of Current Business*, published by BEA and available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from most Commerce district offices. Annual subscription price is $48.30, including weekly supplements. Single copy price is $3.00.

Corporate Profits Show Only Slight Change

Corporate profits from current production increased $200 million in the second quarter of 1976 to a seasonally adjusted annual rate of $115.3 billion, according to preliminary estimates by Commerce's Bureau of Economic Analysis. Before-tax book profits were up $4.2 billion, reaching $145.3 billion. Inventory profits, which are excluded from profits from current production but included in before-tax book profits, increased in the second quarter and accounted for most of the larger increase in book profits.

Domestic profits from current production, at $109.3 billion, were up $1.9 billion from the first quarter rate, as profits of financial corporations decreased $400 million, to $13.8 billion, and those of nonfinancial corporations increased $2.2 billion, to $95.5 billion. The foreign component of profits, as measured by the net inflow of branch profits and dividends from the rest of the world, fell $1.7 billion in the second quarter, to $6.0 billion.

The profits tax liability component of the before-tax book profits total rose to a seasonally adjusted annual rate of $64.1 billion, from $61.1 billion in the first quarter. After-tax profits, at $81.1 billion, were $1.4 billion above the first-quarter rate. Dividends, at $34.4 billion, were $1.3 billion above the first quarter; and undistributed profits, at $46.8 billion, were up $200 million.

Additional data will appear in the August issue of the *Survey of Current Business*, the monthly magazine of the Bureau of Economic Analysis, available from most Commerce district offices or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Annual subscription price is $48.30; single copy, $3.00.

Metrication Handbook Aids Building Industry

Architects, engineers, building code officials and others in the U.S. building industry should find useful a new publication of Commerce's National Bureau of Standards that explains the issues involved in converting this industry to the SI metric system.

Metrication Problems in the Construction Codes and Standards Sector discusses such issues as the exclusion by building interests in other English speaking countries of "centimeter" as a preferred multiple of the base unit of meter; the desirability of introducing dimensional coordination concurrently with the SI metric system; and the problems in getting commitment from all segments of the building industry.

Copies of the publication, NBS Technical Note 915, may be ordered prepaid for 75 cents by SD Catalog No. C13.46:915 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Plants At Three-Fourths Of Practical Capacity

American industrial plants operated at an estimated 75 percent of their practical capacity during the last quarter of 1975, or at about the same rate as during the corresponding quarter of 1974, according to preliminary findings of a survey by Commerce's Bureau of the Census. Practical capacity is broadly defined as the greatest level of output an industrial plant can achieve within a realistic work pattern.

However, there were considerable changes in the durable and nondurable industry groups which tended to offset each other. Plants in the nondurable industry groups operated at 80 percent of capacity in the last quarter of 1975 as against 77 percent during the same period in 1974. In durable goods industries, usage was at a 72 percent level in 1975, a drop from 75 percent the year before.

In previous years, reporting in this survey was voluntary. The 1975 survey was conducted on a mandatory basis in which firms were required by law to participate. The final report will examine the effect of the increased, mandatory coverage on the measure of year-to-year change.

SNIFFER GETS WHIFF OF AIR POLLUTION

The latest in the arsenal of anti-pollution weapons helping scientists measure physical and chemical properties in air pollution is—the sniffer! Commerce's National Oceanic and Atmospheric Administration (NOAA) scientists are flying a quarter-ton of delicate sensors into the pollution plumes of industries, powerplants and cities, searching for microscopic links between air pollution and regional weather.

The sniffer equipment, formerly housed in a trailer, has been installed in a Cessna 206 to increase range and effectiveness. It permits researchers to fly directly into the pollution plumes and stay there long enough for the instruments to respond. The airplane has the speed and endurance to cover large areas in each mission.

The plumes are not homogeneous, but consist of patches of pollutants drifting over the ground. The measurements, the scientists believe, are a key to understanding how pollutants evolve chemically after entering the atmosphere, how they modify weather (especially precipitation) downwind of their source, and how a pollutant source in one location can diminish air quality in communities scores of miles away.

One of the key findings to date has been that the effects of pollutants from apparently similar sources vary greatly from place to place. Ingredients, humidity, atmospheric mixing depth are just a few of the factors that can differ.

This year the researchers have flown plumes originating from powerplants at Colstrip, Montana, and Farmington, New Mexico (in a continuing study supported by the U.S. Environmental Protection Agency) and from major smelting operations near Salt Lake City. They have participated in a pollution-probing manned-balloon experiment conducted in St. Louis by the Energy Research and Development Administration, NOAA and the National Geographic Society. They also probed Denver's "brown cloud," an ochre pall which hangs over the city during periods of heavy pollution.

The equipment senses pollutant gases like ozone, sulfur dioxide, nitric oxide and nitrogen dioxide, and monitors outside temperature and humidity.

Calendar Of Business Events

Sept. 8-9 — Gaithersburg, Md. — Public Workshop on Remote Terminal Emulation, Red Auditorium, National Bureau of Standards. Sponsors: NBS, General Services Administration. For information, Ms. Shirley Watkins, NBS (301-921-2601).

Sept. 10—Studio City, Calif.—Business Opportunity/Federal Procurement Conference, Sportsman's Lodge. Sponsor: U.S. Rep. James C. Corman. For information, Irene Slater, Field Deputy to Rep. Corman, 14545 Friar St., Van Nuys, Calif. 91401 (213-787-1776).

Sept. 12-15—San Francisco—1976 Bank Card Division Annual Convention, Hyatt Regency Embarcadero. Sponsor: American Bankers Assn. For information, Conference Coordinator, Bank Card Div., ABA, 1120 Connecticut Ave. NW., Washington, D.C. 20036 (202-467-4332).

Sept. 12-16—Boston—Boston Gift Show, Sheraton-Boston Hotel. For information, Little Brothers Shows, 261 Madison Ave., New York 10016 (212-986-8000).

Sept. 13—San Diego—Business Opportunity/Federal Procurement Conference, Vacation Village Hotel. Sponsor: U.S. Reps. Bob Wilson, Lionel Van Deerlin and Clair W. Burgener. For information, John Berry, Office of Rep. Wilson, Suite 285, 123 Camino De La Reina, San Diego, Calif. 92110 (714-299-2444).

Sept. 13-15—Washington—OCEANS 76, Sheraton-Park Hotel. Sponsors: Marine Technology Society and Council on Oceanic Engineering, IEEE. For information, OCEANS 76, MTS, 1730 M St. NW., Washington, D.C. 20036 (202-659-3251).

Sept. 13-15—Washington — Productive Communication, Georgetown University. For information, Betsy Girton, Program Coordinator, Continuing Management Education Program—SSCE, Georgetown U., Washington, D.C. 20057 (202-625-4353).

Sept. 13-15—Chicago—Solar Energy for Domestic Heating & Air Conditioning, Ascot House. Sponsor: New York Univ. For information, Heidi Kaplan, N.Y. Management Center, 360 Lexington Ave., New York 10017 (212-953-7262).

Sept. 13-17—Atlanta—1976 AAMA Convention/Bobbin Show, Georgia World Congress Center. For information, American Apparel Manufacturers Assn., 1611 N. Kent St., Arlington, Va. 22209 (703-524-1864).

Sept. 14-16—Chicago—Energy Management in Manufacturing Conference, Sheraton O'Hare Motor Hotel. Sponsors: Society of Manufacturing Engineers, others. For information, Technical Activities Dept., SME, P.O. Box 930 Dearborn, Mich. 48128 (313-271-1500 x403).

Sept. 14-16—Dallas—Increasing Machining Productivity with High Speeds & Feeds clinic, Statler Hilton Hotel. Sponsor: Society of Manufacturing Engineers. For information, SME, see address above.

Sept. 14-16—Cincinnati—Power Coating IV Conference & Exposition, Convention Center. Sponsor: Assn. for Finishing Processes, SME. For information, Jon Grove, SME, see address above.

Sept. 14-16 — Washington — Employee Motivation, Georgetown Univ. For information, Betsy Girton, Continuing Mgt. Education Program — SSCE, Georgetown Univ., Washington, D.C. 20057 (202-625-4353).

Sept. 15—Niagara Falls, N.Y.—1976 Small Business Assistance Conference, Niagara Falls Convention Ctr. Sponsors: Commerce, SBA and others. For information, Conference Headquarters, Room 1314, 111 W. Huron St., Buffalo, N.Y. 14202 (716-842-3354).

Sept. 15-16—Washington — Government Procurement Program, Federal Bar Assn. 1976 Convention, Mayflower Hotel. For information, FBA National Headquarters, 1815 H St. NW., Washington, D.C. 20006 (202-638-0252).

Sept. 15-17—New York — Fundamentals of Finance & Accounting for the Non-Financial Executive, Biltmore Hotel. Sponsor: The Wharton School. For information, Heidi Kaplan, New York Mgt. Center, see address above.

Sept. 16-17—Los Angeles—Energy Conservation in Industrial Plants, Los Angeles Biltmore Hotel. Sponsor: New York Univ. For information, Heidi Kaplan, New York Mgt. Center (see address above).

Sept. 16-17—San Antonio—1976 Regional Operations & Automation Workshops, Hilton Palacio del Rio. For information, American Bankers Assn., 1120 Connecticut Ave. NW., Washington, D.C. 20036.

International Commerce Report

Trends In World Imports Mixed; Steep Gains Few

LATEST QUARTERLY FIGURES SHOW U.S. SHARE OF MARKET STRONGER IN DEVELOPING NATIONS

The value of imports into the world's leading trading nations showed mixed trends during the latest 12-month period for which data are available. As shown in the accompanying table, only a few countries recorded steep increases from the world or the United States compared to the majority for which this occurred in the year ending in early 1975.

Growth in the value of world imports slowed as prices of various internationally traded commodities continued to decline through 1975 and only began to rise in the first quarter of 1976. In addition, although many of the industrialized economies were expanding in the initial months of 1976, lags in placing orders and deliveries may have limited the growth in these countries' purchases. Finally, with imports valued in dollars instead of national currencies, the appreciation of the U.S. dollar relative to the currencies of many of these countries has the effect of making the import increases smaller and the decreases larger.

U.S. exporters improved or maintained their share in about half of the markets, an increase from a smaller fraction last year. This change stemmed from a stronger U.S. performance in the developing countries. Among developed countries the U.S. recorded share increases and declines in about an equal number of the smaller nations, but showed decreases in most of the largest importers, including the five leading traders.

In the top ten markets, the U.S. position improved only in the Netherlands, Sweden, and Canada while remaining unchanged in Spain. The Netherlands accelerated imports of U.S. goods more than other major purchasers. Leading the 10 percent rise in Dutch imports from the U.S. were arrivals of wheat, animal feedstuffs, aircraft and parts, electrical and nonelectrical machines, all of which more than offset declines in organic chemicals and oilseeds.

Greater Swedish imports of various types of U.S. machinery, principally nonelectrical, and of road vehicles and other goods helped boost the U.S. position, despite sharply reduced sales of U.S. aircraft. The U.S. advance in Canada was paced by imports of new automobiles and motor vehicle parts and engines.

The U.S. share in Spain was unchanged as imports from both American and other suppliers declined equally. Increased Spanish purchases of U.S. nonelectrical machinery, power generating equipment, and iron and steel scrap were more than countered by greater overall reductions in arrivals of soybeans, corn and aircraft.

Among the five leading import markets, U.S. import shares dropped substantially in Japan and France while the U.S. deterioration in Germany, Britain and Italy was moderate.

Imports from the United States into Japan fell in nearly every category of goods, particularly in wheat, cotton, steel scrap, and coal. France also imported less U.S. wheat as well as soybeans, aircraft, and organic chemicals; these changes were only partially matched by expanded demand for U.S. pharmaceuticals and telecommunications equipment. German imports from the United States, increasing less than from other suppliers, consisted largely of wheat, hard coal, chemical products and defense items. The greatest declines in the U.K. for U.S. goods occurred in aircraft, organic chemicals and coal. Weaker demand in Italy for U.S. copper, steel sheets and plates, aircraft, and oilseeds overshadowed sizable increases for U.S. wheat and corn.

The U.S. position slipped in Belgium-Luxembourg, with declines recorded for entries of U.S. corn, non-ferrous scrap and pharmaceutical products.

Of the smaller developed markets, U.S. shares varied with strong advances in Yugoslavia and New Zealand, but substantial declines in Greece and Norway. Increased purchases of various U.S. electrical and nonelectrical machinery largely accounted for the better U.S. position in Yugoslavia.

The U.S. share fell in Greece, Denmark, and Argentina as these countries increased their imports more from the world than from this country. These nations, however, were among those smaller developed markets, approximately half, which increased their level of imports from the United States. In Denmark, available data show increased U.S. entries of aircraft, soybeans, and tobacco.

Among the developing nations U.S. share advances were recorded in half of these countries, twice the fraction registered during the comparable period ending early last year. In Mexico, this country's largest market in the developing world, the U.S. position changed little. However, the Mexican import value of U.S. products did increase, led by greater purchases of metalworking machinery, construction and mining equipment, and telecommunications apparatus. Iran and Nigeria doubled their import values from the United States. Increased imports by South Korea from the United States was associated with a moderate advance in the American share.

Shift In German Centers

A new marketing strategy designed to meet the decentralized character of the West German economy has been instituted by the Commerce's Department's Office of International Marketing.

The 14-year-old U.S. Trade Center at Frankfurt will close at the end of the year, to be supplanted by an International Marketing Center at Cologne. From the Cologne center a fair management team will select up to six major German trade fairs each year on which to focus exhibition emphasis. The Cologne center will also have year-round facilities for U.S. exporters, including a small exhibition area suitable for displaying samples or introducing new products, and other quarters for holding seminars, sales meetings or interviews with prospective agents or customers.

World Market Report

'he 45 markets shown below accounted for 84 percent of 1975 imports o all free-world markets and 82 percent of imports from the United States

ues in millions of dollars — Published quarterly

Importing country	1975 Imports				1976 Imports January through latest month					Import change in latest 12 months*	
	From world	From U.S.	U.S. shore %	U.S. shore excl. oil %	Latest month	From world	From U.S.	U.S. shore %	U.S. shore excl. oil %	From world %	From U.S. %
nany, F. Rep. ..	74,986	5,786	7.7	9.0	May	34,515	2,799	8.1	8.6	+ 8	+ 5
in	57,840	11,619	20.1	31.1	May	25,283	4,694	18.6	29.3	— 4	— 12
ce	53,266	4,075	7.6	9.2	Apr.	21,026	1,537	7.3	[1]9.4	+ 2	— 6
ed Kingdom	53,265	5,204	9.8	11.7	May	22,801	2,277	10.0	12.2	— 4	— 8
	38,436	3,355	8.7	11.2	Apr.	13,261	1,001	7.5	(2)	— (3)	— 3
ada	36,331	23,805	65.5	75.5	May	16,837	11,243	66.8	[1]76.7	+ 4	+ 9
erlands	34,560	3,475	10.1	11.9	Feb.	5,715	541	9.5	[1]13.0	— (3)	+ 10
ium-Lux.	30,632	1,947	6.4	7.0	Apr.	10,605	645	6.1	[1]7.2	+ (3)	— 3
len	17,871	1,184	6.7	7.8	Mar.	4,412	307	7.0	8.1	— 1	+ 5
n	16,262	2,585	15.9	20.4	May	7,042	1,127	16.0	21.6	— 4	— 4
erland	13,284	1,010	7.6	8.3	Mar.	3,356	223	6.6	7.8	— 11	— 12
alia	11,448	2,205	19.3	(2)	Mar.	2,961	596	20.1	(2)	— 8	— 12
	10,348	2,051	19.8	19.8	.....	.....	.....	....	....	+ 91	+110
ark	10,329	622	6.0	7.2	Apr.	3,945	195	4.9	5.8	+ 10	+ 5
ay	9,754	696	7.1	7.5	Mar.	2,668	205	7.7	8.2	+ 15	— (3)
ia	9,392	275	2.9	3.2	May	4,371	130	3.0	3.2	+ 4	+ 8
pore	8,126	1,278	15.7	20.7	Mar.	2,121	296	13.9	(2)	— 5	— 7
slavia	7,697	417	5.4	5.8	Mar.	1,680	89	5.3	5.7	— 2	+ 24
nd	7,609	421	5.5	6.4	Mar.	1,670	108	6.5	7.3	— 4	— 6
Africa	7,569	1,341	17.7	(2)	.....	.....	.....	....	....	— 4	+ 2
, Rep.	7,274	1,881	25.9	31.6	.....	.....	.....	....	....	+ 6	+ 11
Kong	6,757	799	11.8	12.6	Apr.	2,640	298	11.3	11.8	+ 13	+ (3)
:o	6,580	4,108	62.4	(2)	.....	.....	.....	....	....	+ 8	+ 9
ia	6,035	[1]662	[1]11.0	(2)	.....	.....	.....	....	....	+119	+ 96
in	5,960	1,655	27.8	31.8	Feb.	1,122	277	24.7	28.6	— 11	— 6
:e	5,322	396	7.4	9.0	Jan.	408	27	6.7	7.8	+ 19	+ 2
esia	4,770	670	14.0	(2)	Feb.	599	95	15.9	(2)	+ 8	+ 5
y	4,739	426	9.0	(2)	.....	.....	.....	....	....	+ 25	+ 22
	4,116	905	22.0	(2)	Mar.	992	214	21.5	(2)	— 7	+ 7
itina	[1]4,024	[1]662	[1]16.5	(2)	.....	.....	.....	....	....	+ 11	+ 7
gal	3,996	485	12.1	[1]13.9	Jan.	299	16	5.3	(2)	— 22	— 9
Zealand	3,788	533	14.1	(2)	.....	.....	.....	....	....	+ 4	+ 14
pines	3,786	822	21.7	(2)	Mar.	1,050	223	21.3	27.7	+ 7	+ 1
d	3,769	272	7.2	8.3	May	1,753	128	7.3	8.3	— 1	— 1
nd	3,141	462	14.7	(2)	.....	.....	.....	....	....	— (3)	+ 9
sia, West	3,118	333	10.7	12.2	.....	.....	.....	....	....	— 12	+ 2
d Arab rates	2,600	372	14.3	(2)	Feb.	406	52	12.7	(2)	[4]+ 45	[4]+ 55
:co	2,566	193	7.5	8.5	.....	.....	.....	....	....	+ 35	+ 13
an	2,131	269	12.6	[1]15.3	Mar.	484	102	21.1	25.2	+ 3	— 7
ad, Tobago	1,470	[1]329	[1]22.4	[1]44.9	.....	.....	.....	....	....	— 21	+ 65
n	1,189	92	7.7	(2)	Feb.	200	18	9.2	(2)	[4]+ 5	[4]+ 14
ca	1,112	404	36.4	46.0	Mar.	234	86	36.7	(2)	+ 7	+ 14
or	943	379	40.2	40.2	.....	.....	.....	....	....	— 2	+ 6
ia	867	[1]214	[1]24.7	(2)	.....	.....	.....	....	....	+ 9	— (3)
	676	65	9.6	(2)	.....	.....	.....	....	....	+ 70	+110

ote: The countries shown above include the 45 major importers of U.S. merchandise in 1975 for which cur- ata are available. Other oil-exporting countries, including Saudi Arabia, Iraq and Kuwait, have become markets for U.S. merchandise, but current trade data from these countries are not now available so annot be included in this tabulation. In order to present comparable statistics for all countries, import ave been adjusted from an f.o.b. to c.i.f. valuation for Australia, Canada, Philippines and the Republic th Africa.

'ompared with preceding 12 months; percentages are based on total imports, including oil.
artly estimated. [2] Not available. [3] Less than 0.5 percent. [4] Import change from year 1974 to 975.

urce: Official trade statistics of listed countries.

Official Trade Briefs

us article is another in a series of re- rts that describes actions affecting orld trade, as compiled by the Legisla- e and Tariff Policy Division of the ternational Economic Policy and Re- arch Bureau's Office of International ade Policy.

THE PRESIDENT

Legislative Message: President Ford ently urged passage of the Export ministration Act Extension, to extend Act three years to Sept. 30, 1979. The Act authorizes the President to regulate U.S. exports when needed to prevent an excessive drain of scarce materials, to further foreign policy, and as necessary for national security purposes. The Administration has also requested that the maximum penalties under the Act be increased.

The request was in a Presidential message to the Congress listing legislation considered to be in priority categories and recommending passage of specific legislation. Among the latter was legislation which would authorize the U.S. to accept fundamental amendments to the Articles of Agreement of the International Monetary Fund. The amendments generally concern: members' arrangements, reduction in the role of gold in the international monetary system, changes in the characteristics and uses of Special Drawing Rights, and modernization of Fund operations. The legislation would also authorize the U.S. to consent to an increase in its Fund quota equivalent to 1,705 million Special Drawing Rights.

Another recommended bill would authorize the President to accept membership for the U.S. in a new, $25 billion Financial Support Fund agreed to by the OECD. It would provide short to medium term financing to participating OECD members with extraordinary needs.

In addition, the President urged passage of legislation which would authorize the Secretary of the Treasury to vote for an increase of $8.4 billion in the authorized capital stock of the World Bank, and to subscribe to an additional 13,005 shares of capital stock, and authorize appropriations of approximately $1.57 billion for the U.S. share increase.

Import Relief: The President has directed expeditious consideration by the Secretaries of Labor and Commerce of requests for adjustment assistance by firms and workers in the **shrimping** industry. This action by the President follows a May 11 finding by the U.S. International Trade Commission that imports of shrimp are entering the U.S. in such increased quantities as to be a substantial cause of serious injury to domestic shrimp fishermen and a recommendation that adjustment assistance be provided to the industry.

CONGRESS

Bills Passed—Senate: The Senate passed H.R. 10612, the Tax Reform Act, in a version including the "Ribicoff amendment," which is intended to insure that Congress has the option of overriding a Presidential decision on the remedy in import relief actions under Title II of the Trade Act. It further permits only those ITC Commissioners who find injury in an import relief action to vote on a remedy, and changes the total number of Commissioners from six to seven. Also included in the Senate-passed version of the Tax Reform Act are amendments to amendments previously made by the House of Representatives regarding tax deferral under Domestic International Sales Corporations (DISC). The bill will now go to a House-Senate conference.

In other action, the Senate passed S. 2839 which provides that the Secretary of Commerce shall conduct timely studies of foreign direct and portfolio invest-

ments in the United States and of direct and portfolio investments overseas by U.S. investors. The Senate also agreed to S. Res. 487, stating the sense of the Senate favoring the President's initiation of negotiations to restrain the growth of **palm oil** imports into the U.S.

Bills Reported—Senate: The Committee on Foreign Relations reported favorably in principle on U.S. participation in both the International Coffee Agreement, and the International Wheat Agreement. The Committee on Banking, Housing and Urban Affairs has reported a clean bill S. 3664, incorporating S. 3133, S. 3379 and S. 3418. This amends the Securities Exchange Act to require disclosure of certain payments in excess of $1,000 to foreign individuals, and officials or agents of foreign governments which may be illegal. (For details, see *Commerce America*, Aug. 16.)

Committee Hearings — Senate: The Committee on Foreign Relations held hearings on S. 1439, the Export Reorganization Act, which deals primarily with the U.S. export licensing process. The Committee also held hearings on the Fifth International Tin Agreement, receiving testimony from government and public witnesses. Hearings on both topics were recessed subject to call.

Committee Hearings — House: The House Ways and Means Committee's Subcommittee on Trade held four days of hearings on the Customs Modernization Act. Treasury and Customs officials, as well as public witnesses, commented regarding amendment of section 592 of the Tariff Act of 1930, governing the penalties which may be imposed for certain false information given in connection with the importation of goods.

The House Committee on International Relations held a hearing on amendments to the Export Administration Act of 1969. Arthur T. Downey, Deputy Assistant Secretary of Commerce for East-West Trade, and Rauer H. Meyer, Director, Office of Export Administration, testified. The Committee's Subcommittee on International Trade and Commerce held hearings on United States-Cuba trade and trade promotion. Testimony was given by State and Treasury officials. The hearings included a discusion of the volume of trade foreign subsidiaries of U.S. firms have had with Cuba since the Cuban Angola involvement.

The Subcommittee on Merchant Marine of the House Committee on Merchant Marine and Fisheries concluded hearings on H.R. 14564, the third flag carrier bill. The bill would protect U.S. ocean carriers from discriminatory rate-cutting practices by foreign nations. Further consideration of this bill has officially ended until next year to allow the Soviet Union to fulfill its recent agreement with the Federal Maritime Commission to bring Soviet rates up to those of independent liner operators.

The Subcommittee on Oilseeds and Rice of the Committee on Agriculture held hearings on H.R. 14921 and H.R. 14984, identical bills regarding inspection and identification of **palm oil and palm oil products.** Testimony was heard from government officials. The Subcommittee approved for full committee action H. Res. 1399, expressing the sense of the House that foreign palm oil development loans by international financial institutions be generally discouraged and H. Res. 1400, expressing the sense of the House that a study by the Secretary of Agriculture on palm oil imports be made.

Committee Hearings—Joint: The Committee on Atomic Energy held hearings on S. 1439, reorganizing the nuclear export functions of the Federal Government. Testimony was heard from members of Congress, and representatives from ERDA, NRC, State, and the Arms Control and Disarmament Agency.

New Legislation: In the second session of the 94th Congress, 160 trade and related bills have been introduced. Bills not previously reported in this column include: H.R. 14750, to amend the Export Administration Act of 1969 to strengthen the antiboycott provisions; H.R. 14751, to extend the coastwise laws of the United States to the U.S. Virgin Islands with respect to the transportation in bulk by water of **crude oil, unfinished oils, residual fuel oil,** and **finished petroleum products**; H.R. 14757, to amend the Federal Food, Drug and Cosmetic Act to require the label on certain food products to disclose the total sugar content; H.R. 14819, to amend the Export Administration Act of 1969 to establish a program of gathering and analyzing information with respect to **multinational enterprises,** and to require publication of such material on a regular basis; H.R. 15881 and H.R. 14889, to impose quantitative limitations on the importation of **mushrooms** into the United States; H.R. 14910, to prohibit the importation of products made from the **livers of ducks or geese** which have been force fed; H.R. 14921 and H.R. 14948, to require that imported **palm oil** products made wholly or in part of imported palm oil be labeled to provide for the inspection of imported palm oil and palm oil products and to require that such imports comply with certain minimum standards of sanitation.

Also, H.R. 14997, to amend section 502(b) (2) of the Trade Act of 1974 to remove certain restrictions regarding which countries may be designated as beneficiary developing countries for the purpose of the Generalized System of Preferences (GSP); H.R. 15114, to amend the Export Administration Act of 1969 to prohibit the exportation of **horses** intended for slaughter; H.R. 1446, to urge the President to deny to any country granting sanctuary to international terrorists the benefits of designation as a beneficiary developing country under GSP; S. 3685, to suspend until the close of June 30, 1977, the duty on certain **doxorubicin hydrochloride antibiotics**; S. 3695, to authorize the Secretary of Commerce to enhance and validate certain export expansion activities; S. 3704, to impose quantitative limitation on the importation of **mushrooms** into the United States; S. 3715, to require that imported **honey** and **honey products** made wholly or in part of imported honey be labeled "imported," and to provide for inspection to assure compliance with certain minimum standards of sanitation; S. 3720, to amend the Tariff Schedules of the United States to impose a duty on imports of **shrimp,** to limit the quantity which may be imported into the United States during any calendar year; and S. 3738, to amend the Tariff Act of 1930 to exempt from duties and taxes supplies for certain vessels.

SPECIAL TRADE REPRESENTATIVE

Section 301—Unfair Trade Practices: On Sept. 21, a hearing will be held on the proposed increase in the tariff on brandy (TSUS items 168.28 and 168.32) valued at over $9 per gallon to not less than $5 per gallon. The proposed action, pursuant to sections 125 or 301 of the Trade Act of 1974 or other authority, is intended to restore the balance of benefits of trade agreement concessions between the EEC and U.S. and results from European restrictions on the importation of poultry from the U.S. Prospective witnesses must submit a request to testify and 20 copies of testimony to the Office of the Special Representative for Trade Negotiations, 1800 G Street, NW., Washington, D.C. 20506 by Sept. 13, 1976. Written briefs not connected with oral testimony must be submitted by Sept. 17.

TREASURY DEPARTMENT

Countervailing Duty Cases: The Department has made a preliminary determination that benefits have been received which may constitute bounties or grants within the meaning of the Countervailing Duty Law on **scissors and shears** from Brazil. A final determination is due by Feb. 9. Before a final determination is made, all written submissions containing relevant views and information will be considered. Submissions must be received by the Commissioner of Customs, 1301 Constitution Avenue, NW, Washington, D.C. 20220 no later than Sept. 8. In a separate decision on a similar complaint, filed by Hammond Lead Products, Inc. in February, alleging that **litharge** and **red lead** from Mexico benefit from bounties or grants, by virtue of the operation of the Mexican export tax

and price control system, the Department concluded that the allegations and information in the petition failed to describe a bounty or grant, and were therefore insufficient to warrant initiation of an investigation.

Also, pursuant to allegations by a petitioner that the Canadian government provides direct assistance to fishermen and fish processing facilities, an investigation to determine the existence of a bounty or grant has been announced, with a preliminary determination due no later than Oct. 1. Fish imports from Canada subject to this investigation totaled approximately $3,200,000 in 1975.

Allegations have also been made in a countervailing duty petition that bounties or grants are being paid on **handbags** from Korea and the Republic of China. The Department has initiated an investigation for which a preliminary determination will be made by Nov. 24.

Treasury has initiated another investigation following receipt of a petition alleging payment of bounties or grants on exports of **unwrought zinc** to the U.S. from Spain. A preliminary determination will be made no later than Dec. 17.

Handbag Waiver: Secretary Simon signed a determination waiving imposition of countervailing duties on Brazilian **leather handbags** exported on or after July 1. Such a waiver is authorized by section 303(d) of the Trade Act of 1974 when the Secretary of the Treasury determines: (1) that steps have been taken to reduce substantially the adverse effects of the bounties or grants; (2) that there is a reasonable prospect that, under section 102 of the Trade Act of 1974, successful trade agreements will be entered into by foreign countries or instrumentalities providing for the reduction or elimination of barriers to or other distortions of international trade; and (3) that the imposition of countervailing duties would be likely to jeopardize completion of such negotiations.

Antidumping Cases: The Department announced a six-month withholding of appraisement on **melamine in crystal form** from Japan, pending determination as to whether it is being sold at less than fair value (LTFV), within the meaning of the Antidumping Act of 1921, as amended. The investigation has been limited to Nissan Chemical Industries Ltd. of Tokyo. A final decision in this case will be made by Sept. 18. Imports from Japan during 1975 were approximately $1.4 million.

Treasury also issued a finding that **tantalum electrolytic fixed capacitors** from Japan, except those exported by Matsushita Electric, are being or are likely to be sold at LTFV. The case has been referred to the ITC for a determination as to whether a U.S. industry is being or is likely to be injured. An affirmative decision coupled with the finding of sales at LTFV would result in assessment of dumping duties. Imports of the subject product were valued at approximately $1.5 million during calendar year 1975. In addition, a finding was announced that **AC adapters** from Japan are not being, nor are likely to be sold at LTFV. Imports from Japan between May 1, 1975 and Feb. 29, 1976 amounted to approximately $500,000.

In other action, a dumping finding with respect to **water circulating pumps, wet motor type, suitable for use in residential and commercial hydronic heating systems** from the United Kingdom has been issued, following affirmative findings of sale at LTFV and of injury to a U.S. industry. Imports from the United Kingdom during 1975 were valued at roughly $580,000.

Modification of Treasury's 1969 dumping finding on **potassium chloride (muriate of potash)** imported from Canada has been announced, revoking the order for four firms: Cominco Ltd., Brookville Chemical Industries, Ltd., Hudson Bay Mining and Smelting Co., Ltd., and Swift Canadian Co., Ltd.

Finally, the Department announced tentative revocation of a dumping finding (published in 1972) with respect to large **power transformers** from Switzerland, and tentative modification of a dumping finding (published in 1970) with respect to **tuners** (of a type used in consumer electronic products) from Japan, produced and sold by the Sony Corporation. The finding on tuners has already been modified to exclude three other Japanese companies and final action on a fourth is pending. Imports of tuners from Japan totaled roughly $4 million in 1975, and imports of large power transformers from Switzerland were valued at $534,199.

COMMERCE DEPARTMENT

Import Relief: Secretary Richardson announced that the Commerce Department is prepared to provide trade adjustment assistance to U.S. shrimping firms. Previously, the Department, in a report to the President, required under the import relief provisions of the Trade Act, noted that approximately 10,400 vessels are engaged in shrimping, and that, as of June 16, none of the boat operators (firms) had applied for adjustment assistance. The report indicated that only a few firms are likely to qualify.

Shrimpers seeking to participate in trade adjustment assistance for firms should petition for certification of eligibility to: the Trade Act Certification Division, Economic Development Administration, U.S. Department of Commerce, Washington, D.C. 20230. EDA is also authorized to provide assistance to communities hurt by loss of jobs and income in the shrimp industry. Communities wishing to participate in this program should contact EDA regional offices located in Philadelphia, Atlanta, Chicago, Denver, Seattle, or Austin.

LABOR DEPARTMENT

Report on the Shrimp Industry: A new Labor Department study completed under requirements of the import relief provision of the Trade Act indicates that as many as 300 former workers involved in processing **shrimp** and other seafood may be eligible to apply for trade adjustment assistance over the next year.

Adjustment Assistance: The Department certified workers at several firms as eligible to apply for trade adjustment assistance. These workers have been or may become unemployed as a result of increased imports. The workers certified (numbers where available are approximate) are or have been employees of the following firms: Motorola, Inc., Phoenix and Mesa, Ariz. **(integrated circuits, discrete semiconductor devices)**, 900 (revised certification); Simonds Steel (division of Wallace Murray Corp.), Lockport, N.Y. **(tool steel, stainless steel)** 350; Midwest Footwear Co., Inc., Sullivan, Mo. **(women's footwear)**, 140; Empire Shoe Mfg. Co., Inc., Elizabethtown, Pa. **(women's and girls' casual shoes)**, 90; Top-O-Mart Clothes, Vineland, N.J. **(men's and boys' suits and sport coats)**, 60; Arrow Co. (division of Cluett Peabody and Co., Inc.), Troy, N.Y. **(men's woven dress shirts)**, 200; Russell, Burdsall and Ward, Inc., Mentor, Ohio **(metal fasteners)**, 175; Fairview Mfg. Co., Hammontown, N.J. **(men's sport slacks)**, 90; Consolidated Pants Inc., Hammontown, N.J. **(women's slacks)**, 40; Fairfield Glove Co., Inc., Fairfield and Bonaparte, Iowa **(work gloves)**, 50; Cardozo Mfg. Co., Inc., Kansas City, Mo. **(aluminum tennis rackets)**, 25; Galeton Production Co., Galeton, Pa. **(electronic receiving tubes)**, 75; Dame Belt Co. and Mac Originals, Inc. (subsidiary of Dame), New York **(handbags)**, 30; Goodyear Tire and Rubber Co., New Bedford, Mass. **(bicycle tires and tubes)**, 65; Northhampton Pants Co., Easton, Pa. **(men's trousers)**, 60; GTE Sylvania, Inc., Ottawa, Ohio **(color and monochrome picture tubes)**, 750; General Electric Co., Liverpool, N.Y. **(color picture tubes)**, 350; Chicago Pneumatic Tool Co., Utica, N.Y. **(pneumatic tools)**, 260; Modern Slack Creations, Northhampton, Pa. **(men's trousers)**, 145; Star Sportswear Mfg. Corp., Lynn, Mass. **(men's leather coats)**, 128; U.S. Steel Corp., Waukegan, Ill. **(stainless steel wire)**, 100; Alamo Accessories Inc., New York **(handbags)**, 12; Frederick H. Burnham Co., Michigan City, Ind. **(work gloves)**, 20; Hercules Trouser Co., Wellston, Ohio (100), Manchester, Ohio (100), Hillsboro, Ohio (90), Fordyce, Ark. (85),

(**men's dress pants**); Jones and Laughlin Steel Corp., Youngstown, Ohio (190), Louisville, Ohio (100) (**stainless steel sheet and strip**).

The Department denied petitions for trade assistance for workers of the following companies: Singer Business Machine Co., San Leandro, Calif. (**mini-computers, electronic cash registers, computer-assisted cash register systems, and related components**), 1150; Magerman Trousers Inc., Philadelphia (**men's trousers**), 60; Veeder Industries, Inc., Lancaster, Pa. (**specialty fasteners**); Duquesne Mini Supply Co., Pittsburgh (**specialty bolts** and **related products**); Hutch Sporting Goods Co., Cincinnati (**sporting and athletic goods**), 10; Pattin Mfg. Co., Marietta, Ohio (**mine roof-support bolts and plate washers**); Pawtucket Screw Co., Pawtucket, R.I. (**steel, brass and stainless steel screws**), 30; Teledyne Efficient Industries, Cleveland (**tools, dies, jigs, and fasteners**), 25; Arvin Industries, Inc., Princeton, Ky. (**compact stereo systems**); Minnesota Mining and Mfg. Co., Wayne, Mich. (**adhesives, sealers, and coatings**); NVF Co. (Sharon Steel Corp.), Farrell, Pa. (**carbon, alloy and stainless steel**), 1350; Erie Bolt Corp., Erie, Pa. (**standard and steel special fasteners**), 115; Texton, Inc. (Fabco Fastening Systems), West Newton, Pa. (**washers**), 25; Hercules Trouser Co., Columbus, Ohio (shipping of **men's dress pants and leisure suits**), 35; SKF Textile Products, Inc., North Attleboro, Mass. (**textile spindles**), 17; University Clothing Corp., Cambridge, Mass. (**men's raincoats**); Keystone Consolidated Industries, Inc. (Delta Metal-Forming Div.), Greenville, Miss. (**specialty fasteners**); Republic Steel Corp., Cleveland (**stainless steel pipe and tubing, carbon steel mechanical pipe and tubing**), 25; Republic Steel Corp., Birmingham, Ala. (**coke and carbon steel**); Henry I. Siegel Co., Inc., Dickson, Tenn. and Fulton, Ky. (**men's and women's clothing**); GTE Sylvania, Inc., Titusville, Pa. (**printed circuit electronic connections**), 150; Charles Rakin and Co., Inc., Frackville, Pa. (**men's lounging robes**), 30; Townsend Fastening Systems (division of Textron, Inc.), Ellwood City and Fallston, Pa. (**specialty fasteners, solid rivets**); Tabin and Pearlman Clothes, Inc., New York (merchandising and selling of **men's suits and furnishings**); National Screw and Mfg. Co., Cullman, Ala. (**welded and weldless chain**); Champion Rivet Div. (division of Champion Commercial Ind.'s, Inc.), East Chicago (**spokes and nipples** used for **bicycles and motorcycles, steel rivets**); Chicago Expansion Bolt Corp., Chicago (**masonry fasteners**); Sperry Univac, Utica, N.Y. (**electronic data processing equipment**), 1000; Wrought Washers Mfg., Inc., Milwaukee (**steel washers**), 160; Forest Hills Sportswear, Lawrenceburg, Tenn. (**suit slacks and dress slacks**), 20; Engelhard Minerals and Chemicals Corp., Union, N.J. (**metal contacts**); Enflo Corp., Maple Shade, N.J. (**TFE basic shapes**); U.S. Steel Corp., Waukegan, Ill. (**carbon steel wire**); Republic Steel Corp. (Gulfsteel Works), Gadsden, Ala. (**carbon steel sheet, strip and plate**), 1850; Cyclops Corp. (Empire-Detroit Steel Div.), Mansfield, Ohio (**hot and cold rolled carbon steel sheets and coils, silicon steel sheets and coils, and stainless steel sheets and coils**), 610; Hochsheid Tailoring Co., Cincinnati (**men's pants**), 15; Nevada Northern Railway Co., East Ely, Nev. (transporting of **blister copper**); Pawtucket Fasteners, Inc., Pawtucket, R.I. (**stainless steel fasteners**); Republic Corp., (Harmony Industries Div.), Mingo Junction, Ohio (**mine roof-support bolts**); U.S. Steel Corp., Homestead, Pa. (**stainless steel plate and carbon steel**), 1800; AMPCO-Pittsburgh Corp. (Wycoff Steel Div., Monaca Plant), Pittsburgh (**pipe thread protectors, pipe thread nipples**); Zenith Electronics Corp., Lansdale, Pa. (**color TV tubes**); Teledyne, Inc. (Canonsburg, Div.), Washington, Pa. (polishing of **stainless steel coils**); TRW/IRW (division of TRW, Inc.), Boone and Newland, N.C. (**fixed resistors**), 460; Belmont Mfg. Corp., New Bedford, Mass. (**men's, women's and boys' clothing**), 40; Freetown Screw Mfg., East Freetown, Mass. (**machine screws, special machine screws, sheet metal screws**), 10; W. T. Grant Co., Matawan, N.J. (retailing); Star Glove Co., Kokomo, Ind. (**cotton work gloves**), 2; The Grandoe Corp., Gloversville, N.Y. (**leather and fabric gloves**); Jones and Laughlin Steel Corp., Gainesville, Tex., (**carbon steel tubing**), 200; Oil City, Pa. (**carbon and stainless steel tubing**), 200; Indianapolis (**carbon and alloy steel strip**), 50; and Willimantic, Conn. (**carbon steel bars**), 40.

Revision: The Department has terminated eligibility of certain Chrysler Corp. **auto** workers to apply for trade adjustment assistance. The revision of the prior certification means that all workers who become separated from Chrysler's Mound Road Engine Plant and Lynch Road Assembly Plant (Detroit), Treton Engine Plant (Treton), and Lyons Trim Plant (Lyons) on and after July 30, 1976 are denied certification. The Department found, however, that the workers at Chrysler's St. Louis Assembly Plant in Fenton, Mo., still meet the group eligibility requirements of the Trade Act of 1974, and thus will continue to be eligible for assistance.

Investigations: The Labor Department, during the period between June 17 and July 21, initiated a series of investigations to determine whether workers in approximately 55 plants are eligible to apply for trade adjustment assistance. Many of the firms manufacture **footwear, clothing, and leather goods**. Several are found in the **fastener** industry

AGRICULTURE DEPARTMENT

Palm Oil: Assistant Secretary of Agri culture Richard E. Bell announced tha the U.S. Government will no longer sup port loans by international money-lendin institutions to develop more **palm oil** pro duction for international export trade.

Meat Imports: The USDA recently pro posed that the Federal Meat Inspectio Regulations (9 CFR 327.2(b)) b amended to add the Republic of Chin to the list of countries from which **mea** and **meat products** (cattle, sheep, swin and goats) may be imported into the U.S

INTERNATIONAL TRADE COMMISSION

Section 337—Unfair Trade Practices The Commission granted complainant motion to withdraw their complaint an terminated the preliminary investigatio of alleged unfair methods of competitio and unfair acts in the importation or sal of **crocheted bootie sets** from Korea.

The Commission also granted the join motion of complainants, American Cysto scope Makers, Inc. (ACMI), and respond ents, Olympus Optical Co., Ltd. an Olympus Corp. of America, to terminat an investigation begun pursuant to complaint alleging infringing importatio of certain patented **glass fiber optic prod ucts**. The basis for the motion was license agreement between ACMI an Olympus Corp. of America.

In another section 337 case, oral argu ment was held July 2 on Administrativ Law Judge Renick's recommendation tha the Commission grant the motion c complainant that the investigation c certain **bismuth molybate catalysts** b terminated. A hearing also was held o July 27 regarding alleged unfair trad practices for **reclosable plastic bag** Motions for transfer of the hearing, an for continuance were denied, and a hea ing was held on Aug. 11 in Washingto D.C., regarding alleged unfair metho of competition and unfair acts in the in portation of crude and/or prepare **chicory root** into the U.S., or in its sal The Commission had previously institut the investigation June 11 on behalf c R. E. Schanzer Co.

Antidumping Cases: The Commissi determined that no U.S. industry is bei or is likely to be injured by sales at le than fair value (LTFV) of **certain hollo ceramic brick** from Canada. Therefor no special dumping duties will be in posed by the Treasury Department. Sp cial dumping duties will be imposed c imports at LTFV of imported **acryl sheet** from Japan, as a result of t ITC's finding that a domestic industr is being injured by LTFV imports. T Commission's evenly-divided (2-2) vo under section 201 of the Antidumping A constitutes a determination of injury.

An investigation has been instituted f

an injury determination with regard to **certain tantalum electrolytic fixed capacitors** from Japan, being sold at LTFV. A hearing will be held Sept. 8 at the Commission Building, 701 E Street, NW., Washington, D.C. Requests to appear must be received by noon Sept. 3.

Countervailing Duties: Pursuant to Department of Tresaury advice that a bounty or grant is being paid on **zoris (footwear)** from the Republic of China, the ITC instituted an investigation to determine injury to domestic industry. The injury determination is necessary before a countervailing duty can be imposed; zoris enter duty-free under GSP.

Termination of Investigation: The ITC has terminated its investigation on the competitive position of U.S. industries, which was instituted at the request of the President on Sept. 14, 1970 under section 332 of the Tariff Act of 1930.

Report: The ITC has released a report giving preliminary statistics on production and sales of **flavor and perfume** materials in 1975, which may be obtained from the ITC Chemicals Division.

Stainless Steel Flatware: The Commission's annual report on stainless steel knives, forks and spoons to the President has been issued and indicates that consumption of knives, forks and spoons with stainless steel handles amounted to 42,903,000 dozen in 1975. Copies of the report may be obtained from the ITC Secretary.

GSP: A public hearing was held on Aug. 3 in connection with the ITC investigation to furnish advice as to the probable economic effect on U.S. industries of the elimination of certain import duties under the GSP. The investigation was initiated after President Ford furnished the ITC with a list of articles to be considered for designation as eligible articles for purposes of the GSP as required by Title V of the Trade Act of 1974. Pursuant to Title V, ITC advice must be obtained and a public hearing held before the President can designate an article as eligible for GSP.

INTERNATIONAL

Foreign Anti-Dumping Action: An investigation has been initiated in Canada under section 13(1) of the Canadian Anti-Dumping Act) in regard to alleged injurious dumping of **textured** or **bulked polyester filament yarn** originating in several countries, including the United States. An investigation has also been instigated regarding alleged dumping into Canada of **bacteriological culture media** in prepared form in tubes and plates from the United States. A similar Canadian investigation of alleged dumping of **hand-held portable fire extinguishers**, resulted in a determination that the margin of dumping or the actual or potential volume of goods involved was negligible, and was therefore terminated.

Export Impact On Jobs

The impact of exports on U.S. jobs is the subject of a series of Commerce Department hearings for business, labor, consumer and local government groups, to be held in Houston, Sept. 13; Chicago, Sept. 23, and Kansas City, Sept. 29.

Revenue Canada has further announced that there is no evidence that the dumping of **scholastic and award rings** from the U.S. caused material injury to Canadian production and dumping duties will not be assessed.

In anti-dumping proceedings pertaining to certain **steam cookers, kettles and generators**, produced by the Market Forge Co., Everett, Massachusetts, the Canadian Tribunal issued a finding that such dumping (1) has not caused and is not causing injury to Canadian production, but (2) is likely to cause such injury. Therefore, any provisional duty or security paid or posted by or on behalf of an importer in respect of the entry of such goods before June 22 shall be returned to the importer. However, for all subject goods dumped into Canada later, an anti-dumping duty shall be levied.

Safeguard Action: Australia has imposed tariff quotas on imports of **orange juice** for a one-year period beginning July 1. Imports in excess of 28.3 million liters of single strength **orange juice** (except from New Zealand) will be subject to a temporary additional duty of twelve Australian cents per liter. This action is intended to give the local industry time to resolve its over-supply problem.

The Government of Canada notified the GATT of the imposition of a 3-year global quota on imported **textile or leather work gloves**, having an export price of $7 or less per dozen, Canadian funds. The action is being taken under GATT Article XIX, pursuant to a determination of import injury by the Canadian Textile and Clothing Board. In the first year, the quota level will be 1,350,000 dozen pairs, with a sub-quota for 100 per cent **cotton work gloves**, based on actual imports during 1975.

Canada also notified that a surtax is being applied to **textured polyester filament yarn** of denier count 199 and less exported to Canada at less than a specified value per pound. The surtax is imposed under GATT Article XIX, and follows a Textile and Clothing Board finding of import injury to Canadian production.

Investment Session In Lesotho

Lesotho will sponsor a Conference on Foreign Investment and Trans-National Corporations in Maseru, October 11-14. Lesotho, wholly bordered by the Republic of South Africa, together with Botswana and Swaziland is a member of a customs union with South Africa, and its goods are sold within the union without duty. The conference may be of value to firms wishing to establish manufacturing facilities in Southern Africa with the possibility of exporting finished products to neighboring countries. For details write American Embassy, P.O. Box 333, Maseru, Lesotho.

Mexico's Rail Officials Seek U.S. Technology For Renovation, Expansion

Mexico, in the midst of a five-year $1.4 billion improvement program for its nationally-owned railway system, offers excellent sales potential to U.S. equipment manufacturers. Interest is so high in U.S. technology that Mexican rail officials asked for a repeat presentation this summer at the Mexico City U.S. Trade Center of a railroad seminar-exhibition held in 1975.

More than 300 officials, including top management of each of the five Mexican roads, were in attendance, along with traffic managers and rail specialists of large Mexican firms and government units owning or operating rolling stock or railyards. Some rail officials from Central America also came. They heard 42 presentations by, among other firms, Budd, GE, GM, IBM, Timken, Pullman-Standard, North American Car, Union Tank Car, and the Santa Fe, Missouri Pacific, Southern Pacific and Texas and Mexican lines. Bruce Flohr of the Federal Railroad Administration and Carl V. Lyon of the Association of American Railroads also spoke.

The U.S. visitors were told of Mexico's plans to invest a recent $100 million World Bank loan in track renewal, drainage and earthworks for stations, terminals and marshalling yards, construction of workshops and depots, improvements in signalling and telecommunications, and purchase of about 125 diesel locomotives, 5,800 freight cars, 30 mail vans and 180 passenger coaches.

Additional massive purchases will materialize next year when and if funds are raised for construction of a suburban train system for Mexico City and electrification of Mexican trunk lines.

The 31 participating U.S. firms project sales of $14.5 million over the next 12 months. Products getting highest interest were locomotives, rolling stock and high-technology items, especially in the areas of communications systems, traffic control, informational and car classification systems. Further details are available from the Mexico-Central America Section, Office of International Marketing, Room 4031, U.S. Dept. of Commerce, Washington, D.C. 20230.

U.S. OFFICES IN EUROPE PLAY AN IMPORTANT ROLE IN GENERATING BUSINESS

Driving down the broad, tree-lined expanse of Brussels' Avenue Louise one day this spring, an American businessman was astonished to see fluttering over the doorway of a handsome building the stars and bars of the Confederacy. Parking his car nearby, the businessman crossed the street and peered at the name plate by the marble entrance of this building. He was surprised to discover that the flag was the state emblem of Mississippi and that Mississippi indeed has its own foreign representatives located in the city of Brussels.

Few Americans are aware that American states support more than 20 offices in Western Europe alone, continues Edward E. Keller, Commercial Attache at the U.S. Embassy in Brussels. The objectives of these offices are promotion of investment within the states, advancement of trading relations between firms located in their individual states and European enterprises, and finally, where possible, some travel promotion. Two states — Ohio and Pennsylvania — each operate two European offices. The New England states as a group recently opened one single regional agency in Brussels. Surprisingly, there are even two regional substate offices: North Texas has an office in London, and the Southwest of Pennsylvania maintains one in Frankfurt. The number of state offices appears to be increasing. Indiana, Arkansas and Kentucky are the latest newcomers to the European scene in just the past year.

The state and regional offices are scattered throughout Western Europe, but the majority of them have chosen to work out of Brussels. The reasons for this are fairly straightforward. Brussels is a centrally located site and not one of the "Big Three" (France, Germany and Great Britain). As the headquarters of the nine-country European Communities, it is regarded as the capital of Europe. It offers easy access to other European countries, good communications, plenty of available office space and housing, and excellent banking and financial facilities. Employees with a command of several languages are readily available.

Each state office operates in its own fashion, corresponding to its own requirements and the personalities of the directors. Big industrial states such as Illinois, Ohio and Michigan attempt with considerable success to promote the sale of a wide range of goods and services originating within their separate borders. States with a more limited manufacturing base tend to concentrate on particular industrial categories. The Virginia State Office, for example, makes a special effort in the electronics, textile and materials handling equipment fields. The South Carolina State Office especially promotes the sale of textiles and chemicals.

The state offices are not in competition with the U.S. Federal Government and its overseas establishments. On the contrary, they are a force which bolsters the main objectives of these institutions, including the promotion of American business interests. Exactly how is this done? The U.S. Embassy in Brussels, for example, provides trade leads generated throughout Europe, the Middle East and North Africa to all state offices which express an interest in having these leads. On a weekly basis, a state officer screens the large volume of leads generated by U.S. diplomatic missions.

The Brussels office of the State of Michigan, for one, has in its filing cabinets information and catalogs of a great many Michigan firms. When a trade lead matches up with a Michigan product category, the state office writes directly to the European or Middle Eastern buyer and suggests that the products of the Michigan company might well fill his needs. Sometimes the letter is followed up with a telephone call or even with a visit if possible. Once the possible client has expressed some interest, the Michigan-based company is then advised of this commercial lead. The state office's follow-up of the initial trade opportunity thus can be of great utility to the company back home interested in expanding its markets.

The state offices work closely with American embassies and consulates throughout Europe and the Middle East. When the commercial staffs of these bodies organize a type of "open house" for local business persons—the so-called "Sprechtag"—state office representatives are invited to sit in with embassy or consulate personnel to interview European business officials. These state and federal employees cull trade leads, licensing opportunities, and an occasional reverse investment opportunity. The state officers often make a point of exchanging leads with their State and Commerce Department counterparts, to their mutual benefit.

As a general rule, the business representative who travels through Europe and who seeks help in establishing contacts should go first to the embassy or consulate located within the area he is exploring. Often, however, it is also useful for him to call on his state office. There he will meet with state staffers who are likely to have a personal knowledge of his operation. If they do not, he

REPRESENTING ILLINOIS—*Arthur Compton (left), Director of the State of Illinois office in Brussels, discusses his state's offerings with Bruce Allen, President of International Products S.A., Brussels. Some 24 states have offices in Europe.*

can provide them with the information they need in order to identify opportunities for his firm in the future.

In addition to serving the American business visitor and generating new business for the state's firms, the state and regional offices in Europe encourage foreign firms to consider capital investment in the United States in general, and specifically in particular areas. This is of prime interest to the state and its effort to increase employment and broaden the tax base. Each office is equipped to undertake detailed studies for the foreign prospective investor of such factors affecting new capital investment as the tax structure, the labor force, real estate costs, raw material and supplier availability, and the potential market. These offices appear to be accomplishing their task since all of them can cite individual success stories.

Furthermore, European direct investment in the United States has grown at an accelerated pace in the past several years. Foreign direct investment in the United States now totals about $26 billion, mostly in manufacturing and petroleum. The state offices have played an important role in persuading foreign investors to consider the United States as fertile ground for new manufacturing ventures.

Depending upon individual needs, business officials should plan to call upon these state and regional offices, in conjunction with their visits to the commercial officers of embassies, consulates and trade centers throughout Europe and the Middle East.

AMERICAN OFFICES IN EUROPE

Alabama — Kasthoferstrasse 50, CH-3006 Bern. Tel: 44.78.29, Telex: 33284. Dir.: William Y. Pennington.

Arkansas—Avenue Louise 437, 1050 Brussels. Tel: 649.60.23. Dir.: Robert H. Adcock, Jr., Eur. Repr.: Thorkil Stregel.

Connecticut — Avenue Moliere 262, 1060 Brussels. Tel.: 343.01.10, Telex: 26903. Dir.: John A. James.

Georgia—Square de Meeus 20, 1040 Brussels. Tel: 512.81.85, Telex: 23083. Dir.: John L. Turbiville.

Illinois—Place du Champs de Mars 5, 1050 Brussels. Tel: 512.01.05, Telex: 61534. Dir.: Arthur A. Compton.

Indiana—P.O. Box 396, Zwijndrecht 3250, Netherlands. Tel: 10/13.85.16, Telex: 26229. Dir.: Jaap de Rijke.

Kentucky — Office to be opened in Brussels Sept. 9.

Michigan — Rue Ducale 41, 1000 Brussels. Tel: 511.07.31, Telex: 61573. Dir.: Charles S. Besterman.

Minnesota—Herengracht 214, Amsterdam. Tel: 21.11.88. Dir.: Milton Fox-Martin.

Mississippi—Avenue Louise 418, 1050 Brussels. Tel: 640.11.16, Telex: 61304. Dir.: Royce Culpepper.

New England Regional Commission (includes: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont)—Avenue Louise 386, Bte. 8, 1050 Brussels. Tel: 640.26.26, Telex: 62468. Dir.: Harald I. Hellman.

New York—13a Harriet Walk, London SW1X 9JQ. Tel: (01) 235.3150, Telex: 21879. Dir.: Robert A. McGrath.

North Carolina — Berlinerallee 56, 4 Duesseldorf. Tel: 37.80.15, Telex: 858.18.46. Dir.: E. Ray Denny.

Ohio—Avenue de la Toison d'Or 21, 1060 Brussels. Tel: 513.07.52, Telex: 26698. European Dir.: Walter Birge, Jr.; and Immermannstrasse 13, Duesseldorf. Tel: 35.07.35, Telex: 858.28.32. Mgr.: Karl Koch.

Pennsylvania—Place de l'Albertine 2, 1000 Brussels. Tel: 512.51.78, Telex: 61202. Dir.: John D. Brennan; and Business Associations S.A., Quai G. Ador 62, CH-1207 Geneva. Tel: 35.85.20. Dir.: Michel Demaurex; and Penn's Southwest Assn., Westendplatz 29, D-6000 Frankfurt am Main 1. Tel: 75.24.37, Telex: 41.62.54. Dir.: Arno Burckhardt.

Puerto Rico—Zurich-Haus am Opernplatz Pavilion, D-6000 Frankfurt am Main 1. Tel: 72.12.42, Telex: 418.92.57. Dir.: Svend Kristensen.

South Carolina (State Development Board)—International Center Rogier, Passage 29, Box 46, 1000 Brussels. Tel: 218.34.93, Telex: 26593. Dir.: Samuel F. Morris.

Texas (North Texas Commission)—Upper Phillimore Gardens 8, London W8 7HA. Tel: 937.67.53, Telex: 91.93.00. Dir.: A. J. M. Chadwick.

Virginia — Avenue Louise 479, 1050 Brussels. Tel: 648.61.79, Telex: 26695. Dir.: Denis E. Rufin.

Wisconsin—Bockenheimer Landstrasse 55, P.O. Box 3525, D-6 Frankfurt am Main. Tel: 71451 x289, Telex: 841/41.14.16. Dir.: Donald C. Burdon.

RISING SALES SHOW THAT AMERICANS CAN DO BUSINESS IN SYRIA

Syrian economic development, stimulated by foreign assistance and higher prices for Syrian exports, has rapidly increased since the October 1973 war. Under new, more pragmatic leadership, Syria has sought to diversify its foreign markets and sources of capital and expertise, hitherto dominated by the socialist countries. Contrary to previous policy, the country now welcomes American enterprise in developing key sectors of its economy, including petroleum, phosphates and other minerals, textiles and agriculture. Although presently at a disadvantage to European and Japanese competitors in offering attractive commercial financing, American firms are finding a promising market in Syria, especially in petroleum equipment and services, irrigation and agricultural technology, vehicles, and a wide variety of non-electrical equipment and machinery.

In the following excerpts from the first Economic Trends Report prepared in Damascus since the break in diplomatic relations in 1967, the U.S. Embassy there provides details on the economic situation and opportunities for American business in this developing Near East nation.

The ascension to power of General Hafez al-Asad in November 1970 put an end to the chronic political instability and economic stagnation which had plagued Syria since independence in 1946. Asad has been president almost six years, longer than any of his predecessors. His regime has been marked by a relaxation of internal tensions, a certain pragmatism in foreign policy, and rationalism in economic planning.

Since the 1973 war, the Syrian economy has rapidly expanded, thanks to generous grants and loans from oil-producing Arab states, higher prices for Syrian exports such as petroleum and phosphates, and a large measure of sound and professional economic planning. GDP increased 25 percent (in constant 1963 prices) from 1973 to 1975. Economic development needs occasioned a sharp rise in imports, and Syria's trade balance fell deeper into deficit; it maintains, however, a healthy balance of payments, resulting largely from substantial transfers from other Arab states.

Syria seeks to make maximum use of these transfers and loans ($1.68 billion estimated from all sources in 1974) to build a strong economy which will sustain itself and continue to grow when the flow of such outside funds diminishes. Long-range planning is solidly grounded on the concept of developing existing re-

sources and supporting infrastructure, including transportation, ports, electric power and communications. Accordingly, Syria has invited for the first time since the late 1950s western oil companies to assist in expansion of its increasingly important petroleum industry (1975 production: 9.5 million tons) and has raised production from its extensive phosphate deposits (875,000 tons in 1975).

Blessed with extensive arable lands, much of which lies fallow, and a relatively low, if rapidly growing, population, Syria has launched an ambitious plan of irrigation and land reclamation, centering around the giant Tabqa Dam on the Euphrates River, which aims to increase food and cotton production and in the long run to enable it to become a major food-exporting nation. Syria is expanding and modernizing its already well-established textile industry. Finally, by building modern hotels and other tourist facilities and by expanding the national airline, Syria hopes to draw an increasing number of visitors to enjoy its natural beauties and the well-preserved remains of Roman, Byzantine and Arab cultures.

This is a sound plan, the success of which depends on a number of factors: the absence of war, continued internal stability, development of a trained cadre capable of executing and administering the economic development of the country, and a continued inflow of foreign money to help pay for the necessary imported goods and services until such time as the Syrian economy generates enough earnings to take off on its own.

Sudden increase in U.S. sales

Following the resumption of relations between the two countries in June 1974, American exports to Syria accelerated. Syria had suddenly acquired the means to pay for the sophisticated goods it had long desired. U.S. sales to Syria jumped from $39.6 million in 1974 to $127.8 million the following year, an increase of 222 percent (Syria's imports from the United States in 1975 constituted 8.6 percent of Syria's total import bill). U.S. exports consisted largely of wheat, rice, cigarettes, autos and other vehicles (including parts), and non-electrical machinery. Thanks to the delivery of $105 million worth of Boeing aircraft to Syrian Arab Air Lines and $16 million of General Electric locomotives and parts, U.S. sales to Syria in the first half of 1976 exceeded the total of the previous year. U.S.-Syrian trade is very much a one-way street; Syria exported only $7.4 million to the United States in 1975, mostly tobacco, skins, and hides.

The Embassy notes, however, that this increase in U.S. business with Syria is almost exclusively in the realm of sales. Syrians appreciate the quality of U.S. goods and services and are often willing to pay higher prices for them. At the same time, U.S. firms have not yet been able to capture any of the large turnkey development projects tendered by the Syrian Government in the past 2½ years. Although the singular Syrian brand of "socialism" tolerates a small but flourishing private sector—principally in some areas of real estate, import/export, textiles, retailing, construction, agriculture, tourism and transport—the public sector is the engine of the economy; in most cases, the American businessman will find the government is the major buyer of his product or service.

American firms of course will play the major role in U.S. A.I.D.-financed projects, but in open competition against European and Japanese firms, U.S. companies have not fared well. First, despite the relative internal political stability imposed by the Asad Government, tensions remain high in the region. These tensions are particularly felt in Syria, which is still in a state of war with Israel and is situated next door to a Lebanon torn by civil strife. A number of visiting American businessmen have expressed reluctance to invest people and money in long-term Syrian development projects until there is an amelioration of regional political problems. Secondly, European and Japanese firms, often with the close cooperation of their governments, can usually offer a more attractive financing package than can their American competitors, who often must depend more on commercial financing rates. Both Eximbank and the Overseas Private Investment Corporation are considering renewing operations in Syria; loans and guarantees offered by these institutions would help make American firms more competitive.

Moreover, certain Syrian business practices exasperate Americans, even those with long experience in the Near East. The Syrian bureaucracy can be cumbersome and inefficient. Project cost estimates can be highly inaccurate, partly due to inflation (30 percent in 1975) and partly to inexperienced Syrian planners. Another problem is that the Syrian Government often requires bid and performance bonds for government tenders equal to 5 and 10 percent, respectively, of the contract price. The Syrian Government will occasionally tender a project, accept detailed bids (costly to prepare and accompanied by a bond) from foreign firms, hold the bids for a long period while considering the offer, then cancel all bids received and later retender the project. Such practices may discourage even the most determined American exporter.

However, rising U.S. sales demonstrate that Americans can do business in Syria. U.S. businessmen who have scored success in the Syrian market invariably offer a quality product or service at a competitive price and are willing to make frequent trips to Syria to promote their enterprise (there is no "resident" American business community in Syria, although there are a few American businessmen living temporarily in Damascus working on specific projects for which their firms have contracted with the Syrian Government). Syrians like to do business on a face-to-face basis and businessmen willing to invest the time and effort in personal contact with Syrian buyers will often find that contract specifications and conditions can be negotiated in a mutually satisfactory way.

American businessmen successful in the Syrian market almost always work closely with reputable local representatives. Although the Syrian Government prefers to deal directly with foreign firms on government contracts, officials admit that local representatives are usually necessary in alerting the foreign businessman to trade opportunities, making introductions and contacts, and preparing translations and taking care of such matters as difficult-to-obtain, last-minute hotel reservations.

Market advantages

The greatest advantage enjoyed by the U.S. businessman in the Syrian market is the quality and reputation of his product and service. Furthermore, some of the best regarded American enterprises coincide well with Syrian economic development needs. The Tripco joint venture signed in May 1975 publicly signaled an opening to the West in the Syrian petroleum industry, hitherto dominated by the Soviet Union and Eastern Europe. The government desires to involve American firms in all phases of its growing petroleum industry, including exploration and drilling (in partnership with the Syrian Petroleum Co.), pipeline construction, refinery and oilfield operations, equipment sales, and service contracts.

America's excellent reputation in irrigation technology and agricultural development should help firms seeking to assist Syria in developing this key sector. One U.S. firm has already won a modest contract for a land development study and pilot project using sprinkler irrigation systems on the Mediterranean coast. Other promising fields for U.S. enterprise include housing and community development (Syria plans construction of a number of "new towns" over the next quarter-century and some 90,000 housing units under the Fourth Five-Year Plan), design and construction of tourist facilities, development of communication systems, and sale of vehicles, medical equipment and technology, textile machinery, and construction, agricultural and materials handling equipment.

Enormous Problems Face New Portuguese Government

Portugal's first free legislative and presidential elections in 50 years confirmed the moderate center and leftist parties' dominance. The Socialist Government of Mario Soares will confront enormous economic and labor problems, reports Commerce's Office of International Marketing.

One of the first priorities of the new government is to establish programs designed to resolve persistent problems of labor/management relations, to define the role of private enterprise in the Portuguese political setting and to determine the proper role of foreign private investment in development of the economy.

Labor/Management Relations: Immediately after the revolution, about half of Portugal's 3.1 million workers were organized into some 400 unions. Lacking any true tradition of free labor organizations, these and other newly independent labor groups were a frequent source of disruption. Physical takeovers of factories and offices, detention of management officials for forced negotiations, threats of physical violence if demands were not met, and government-mandated labor settlements marked the beginning of new labor militance.

Subsequently all unions were organized under a single body called "INTERSYNDICAL," which was heavily dominated by communists. Succeeding provisional governments were forced to take a more moderate position regarding labor demands.

Recent labor settlements have witnessed a policy of firmness tempered with concessions on the part of the government, and some initial flexibility on the part of labor and management to achieve equitable settlements. Nevertheless, labor has not finally accepted the necessity of scaled wage and benefits' increases. Provided the government's willingness to provide financial assistance to endangered firms continues, it is hoped that management will take appropriate steps to help maintain productivity and employment.

The Portuguese Government has issued legislation establishing the basis for future labor/management relations. Under the legislation, contracts must be in writing and for a duration of at least one year. Strikes during the term of the contract are forbidden. Implementing regulations will later be issued to establish procedures for arbitration.

If this legislation can be implemented successfully, it will restore peaceful labor/management relations in Portugal and contribute greatly to a restoration of economic stability.

Role of Private Enterprise: Since April 1974, about 70 percent of Portugal's major industries have been nationalized. To the Embassy's knowledge, no firms with majority foreign ownership have been nationalized. There have been cases of government intervention to allow government subvention. Frequently, these interventions have resulted from the greatly increased wages in the labor intensive industries, i.e., textiles and garments, and corresponding reductions in foreign markets. The future of firms in which the government has intervened is not yet determined.

All major democratic parties, during the elections held April 25, campaigned on the basis of no further nationalizations. (The center right Social Democratic Center (CDS) Party, which displaced the Communists as the third largest party, proposed a platform to roll back certain nationalizations). Most were in agreement that more firms had been nationalized than was desirable, and we may see some movement towards denationalizations.

A few firms, previously subjected to worker takeovers following the revolution, have been returned to their owners. Unfortunately, owners may find that returned firms have been stripped of assets to pay salaries and bring benefits to an excessive number of employees.

Foreign Investment: A new code of foreign investment has been issued. It reconfirms the role of foreign investment in development of the economy, but places a number of restrictions on it. The code attempts to clarify conditions and restrictions on foreign investment to eliminate *ad hoc* decisions. It authorizes creation of a Foreign Investment Institute to act as sole government agent in negotiations with foreign investors. Certain types of investment are forbidden: mere acquisition of existing domestic enterprises; public transportation; utilities; monetary and financial institutions; insurance; advertising and media; and sectors nationalized to date. Significantly, the law does not place restrictions on existing investment in these fields.

Provisions are made for the remittance of profits from operations and proceeds of sale in the event the firm is sold, for just indemnization in the event of nationalization, and for foreign personnel. Although the implementing regulations have not been issued, and U.S. firms have had no experience with the initial operation of the law, it appears the Portuguese Government will pursue a moderate policy with regard to foreign investment. Further positive modifications of the code are anticipated.

An important provision of the code required the registration of existing foreign investments within three months of publication of the code, that is by July 6.

The introduction of massive and profound social, political and economic changes into the stable Portuguese nation has had the inevitable effect of disrupting the nation's economy. Reliable estimates indicate that the gross national product fell more than 10 percent in 1975, that the consumer price index rose 17 percent, and that unemployment topped 12 percent. Much of these difficulties is due to the preoccupation with politics among the population at large.

Once the stabilization of the political scene has been accomplished, the government will be able to devote itself to the difficult and time-consuming task of implementing its economic policies. The prospects, then, for Portugal's participating in the recovery from the western world's recession will be good.

Togo's 'Mini-Market' Offers Friendly Business Setting

The Togolese economy sustained a setback in 1975, but business has recovered in the past few months and the outlook for the remainder of 1976 is hopeful.

While agricultural production levels remained generally depressed last year, the U.S. Embassy in Lome reports that the big factor in the nation's economic downturn was the more than 50 percent decline in phosphate exports from the previous year's record. Coupled with a rise in imports, the nation's balance of payments dramatically reversed and foreign exchange holdings declined significantly. The small industrial sector showed strength and promise of expansion, and commercial activity was good until near the end of the year when it fell off mainly due to domestic political and external factors.

The government has responded to this year's economic improvement by announcing a 1976 budget increase of 64 percent and declaring a $1.1 billion outlay for the Third Five-Year Plan (1976-80). Despite last year's current account deficit, the nation's currency remains sound, as it is pegged directly to the French franc.

U.S. relations with Togo are friendly and Togo continues to enjoy political stability. U.S.-Togolese trade in 1975 remained at traditional low levels; U.S. exports to Togo amounted to under $5 million while Togolese exports to the United States hovered around the $1 million mark. France and other Common Market nations remained Togo's leading trading partners, although the United States has always competed on an equal basis permitted by Togo's open-door trade policy.

Now that most African nations have signed the Lome Convention, U.S. ex-

porters will begin finding neighboring markets equally attractive as more drop the preferential tariff treatment previously accorded European nations. Establishment of the West African Common Market (ECOWAS) should serve as a further stimulus to American exporters to the region. Thus, Togo's position as a convenient base to establish headquarters for serving an expanded regional market should not be discounted.

Primary Togolese imports from the United States in the past year were heavy machinery, tobacco products, used clothing and rice; only manioc products were exported to the United States. American firms have shown reluctance to penetrate this mini-market, despite an increasing Togolese interest in U.S. foodstuffs, household wares, building supplies, cosmetics and agricultural machinery. With expanded credit facilities being made available through the Togolese Development Bank (BTD), a growing astuteness on the part of African businessmen and a friendly atmosphere in which to do business, small and medium-sized American exporters should be looking increasingly to this growing market.

Correspondence with Togolese firms and descriptive product literature must be in French, and U.S. businessmen should be willing to visit Lome as part of a West African business trip. Compared to many of the more traditional West African markets for U.S. goods and services, conditions for doing business in Togo are favorable.

The present level of U.S. investment in Togo is low and limited to portfolio investments in two commercial banks, direct investment in two petroleum distribution firms and a small scattering of transportation and industrial investments. Excluding the portfolio portion, U.S. investment is less than $2 million.

Togo is actively searching for foreign participation in its growing industrial base. The government maintains a liberal investment code providing for customs duty and tax exoneration as well as the right of profit repatriation. Its record of political and economic stability should serve as further stimulus for American companies seeking opportunities in small and medium-sized sectors. In addition, Togolese labor is willing and easily trainable, thus providing an ideal situation for the establishment of processing and assembling reexport industries.

The Togolese Government has expressed interest in setting up an instant coffee factory, a small petrochemical plant and a lumber production unit, in addition to agro-industrial, rail and road infrastructure and tourist facilities as outlined in the Third Development Plan. Public and private building is booming, offering opportunities for American engineering and construction firms.

Calendar For World Traders

Sept. 2—Memphis—Mid-South Exporter's Roundtable dinner meeting, Monte's Restaurant.

Sept. 6—New York—World Trade Institute's Evening School of World Trade begins.

Sept. 7—New York—FCIB Roundtable Conference on International Finance, Credit, Collection and Exchange Problems, Summit Hotel.

Sept. 9—New York—Luncheon meeting of the Overseas Automotive Club, Inc., Summit Hotel. Speaker: William F. Prebe, Economist, Dana Corp.

Sept. 9—Louisville—International Credit and Finance Assn. meeting, Rodeway Inn.

Sept. 10—Lincoln, Neb.—Governor's International Trade Conference, Hilton. Sponsors: Mid-West International Trade Assn., Nebraska Export Council. For information, Omaha Commerce District Office, 402-221-3664.

Sept. 13—Houston—World Trade Assn. luncheon meeting, World Trade Club. Speaker: Edward O. Vetter, Under Secretary of Commerce.

Sept. 13—Louisville—Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro East.

Sept. 13—Miami—Sell in Venezuela seminar. Keynote speaker: Harry W. Shlaudemen, Asst. Secretary of State for Inter-American Affairs and former Ambassador to Venezuela (1975-76). Sponsors: Miami Commerce District Office, Florida District Export Council, International Center. For information, Lewis Nixon, 305-350-5267.

Sept. 13-15—Washington, D.C. — Sixth Meeting of the National Assn. of Foreign-Trade Zones, Statler Hilton. For information, Robert Jacobi, 803-577-0695.

Sept. 13-15—New York—Seminar on International Personnel Management, American Management Associations.

Sept. 14—Phoenix—Near East seminar: Developing Trade Between Israel and Arizona. Speaker: John Haldane of Commerce Action Group for the Near East.

Sept. 14—Winston-Salem, N.C.—Sell in Venezuela seminar, Elks Club. Sponsors: Greensboro Commerce District Office, Triad World Trade Assn. For information, Sam Troy, 919-378-5345.

Sept. 15—Chicago—International Trade Club Fall luncheon meeting, Holiday Inn/City Centre. Russell Baker, Senior Partner, Baker & McKenzie, will discuss The Michelin Decision: A Turning Point for U.S. International Business. For information, 312-341-9021.

Sept. 15—New York—FCIB Book Exporters Credit Group luncheon meeting, Summit Hotel.

Sept. 16—Houston—Workshop on Management Implications of the Changing Brazilian Financial, Taxation/Incentive, and Technology Environment, World Trade Center. Sponsors: Council of the Americas, World Trade Assn.

Sept. 16—Chattanooga — World Trade Council meeting, Read House.

Sept. 16—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Summit Hotel.

Sept. 21—New Orleans—Sell in Venezuela seminar. For information, Commerce District Office.

Sept. 21—Memphis—World Trade Club program on International Documentation Facilitation, Southwestern Univ.

Sept. 21—New York—FCIB Hardware-Automotive & Allied Trades Group luncheon meeting, Summit Hotel.

Sept. 22—Chicago—Sell in Venezuela seminar, Pick Congress Hotel. Keynote speaker: Donald E. Johnson, Asst. Secretary of Commerce for Domestic and International Business. Sponsors: Chicago Commerce District Office, Illinois District Export Council, International Trade Club. For information, Roy Dube, 312-253-4450.

Spain, Portugal Seminar

Spain and Portugal will be the focus of a seminar at the Commerce Department in Washington, Sept. 27-28. *New Developments for Business*, a program co-sponsored by the U.S. Department of Commerce and American Management Associations, is expected to attract a number of distinguished panelists and participants from the United States and Spain.

Commerce will be represented by Richard Garnitz, Director of the Office of International Marketing, who will co-chair the event with A. R. Gale, President, IBD Associates; Leonard S. Matthews, Assistant Secretary for Domestic and International Business; and Roger J. A. Turner of the Office of International Marketing.

Details, including possible participation, may be obtained from Ken Nichols, Office of International Marketing, Room 1204, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2762.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

Licensing, Investment Abroad

SWITZERLAND—Manufacturer of machines for mixing and portioning meat products would like to diversify. Manufacturing rights are sought to produce **food processing machinery, including snack foods; equipment for commercial and institutional kitchens; and any other machinery or equipment suitable to the firm's experience and technology.** Firm has 65 employees and a marketing territory covering Europe, the Middle East and Africa. A modern plant and office facilities are located in Brunnen, Canton Schwyz with access to a rail siding and good road facilities. Plant is fully equipped to fabricate light metal and stainless steel equipment and machinery. Ernst Felber, Hollymatic AG, Wylenstr., P.O. Box 83, CH-6440 Brunnen. P-76632.

1099—YUGOSLAVIA — Major enterprise seeking participation by U.S. industry in $5 million project to **mine and process antimony.** Surveys have confirmed existence of 600,000 tons of ore and probability of much more. Company plans underground mining of 60,000 tons of ore annually and construction of flotation plant. Pilot tests indicate that 60,000 tons of ore will yield 1,750 tons of concentrate of 60 percent antimony and 1 percent arsenic. About $1.5 to $2.0 million of total project cost will be needed for mining and flotation plant equipment from outside Yugoslavia. Yugoslav mining company will consider: (1) a joint venture, with sufficient exports guaranteed to permit repatriation of foreign partner's earnings; (2) foreign financing linked to guaranteed exports; (3) foreign financing with repayment guaranteed by Yugoslav financial institutions. Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76633. OPIC.

1477 — BOLIVIA — Seeks collaboration with U.S. firm to develop **sulphur deposit** near Chilean border in area called Sillajiway, which is of volcanic origin. Detailed drilling remains to be done, but geological study by reputable geologist is available. Study indicates area of 1.6 million cubic meters with over 6 million metric tons of 65.6 percent sulphur on average. Sufficient for annual production of 78,000 MT fine sulphur for 50 years. Water and limited access road in area. For name of person to contact in Bolivia write to Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76634. OPIC.

1500—GERMANY — Planning and consulting company seeks joint venture arrangements with U.S. **construction companies** for projects in Middle Eastern countries, Nigeria and Zaire. Firm has several years of experience in providing turnkey operations in those areas. It specializes in electro-technical installations, air-conditioning and in interior design for administrative buildings, schools, hospitals, etc. Firm would be able to take on additional and larger projects if it could be associated with a large U.S. company. Gerd Ruprecht, Gen. Mgr., Planex GmbH & Co. KG, Ottenbohlstr. 6, D-7772 Uhldingen-Muehlhofen 3, Germany. Cable: PLANEX, Telex: 733947, Telephone: 07556/8323. WTDR. P-76635.

2023—NEW ZEALAND — Leading importer of coffee and tea seeks licensing arrangement to produce a **dry, milk-based cream.** J. A. Calvin, Mng. Dir., Faggs Products Ltd., P.O. Box 14164, Rongatai, Wellington. P-76636.

2300—UNITED KINGDOM — Manufacturer of **waterproof golf wear, foul weather clothing, nylon rainwear, buoyancy aids and temporary road signs** seeks licensees. Product should be compatible with firm's present line. Has 220 employees. Eric Southern, Dir., A. D. Crompton Ltd., Corporation St., Chorley, Lancashire. P-76637.

2511, 2512 — NEW ZEALAND — Established furniture manufacturer and textile importing company seeks license to manufacture above average **fashion furniture.** Designs and know-how for wooden and upholstered furniture of interest. B. M. Readman, Gen. Mgr., Paterson and Robertson Ltd., P.O. Box 511, Auckland. Telephone: 33284. P-76666.

2541, 3079—GERMANY — Offers licenses to appropriate U.S. firms for manufacture of **molded plastic products and polypropylene specialties in the construction and furniture industries.** Also seeks licenses from U.S. companies for these items. Leading manufacturer/distributorship of plastic laminated sheets, plates and partitions, as well as compounds of polyamide and polypropylene, for use in construction and furniture industries. Exports go to European and Near East countries. Established 1867, employs 1,400. Dr. Fritz Jaeger, Resopal Werk H. Roemmler GmbH, D-6114 Gross-Umstadt/Hessen. Telephone: 06078-801 (80405). Telex: 0419815, Cable: Resopal. P-76638.

2541, 2542, 2599—UNITED KINGDOM — Firm would like licensing or assembly arrangements with U.S. manufacturer of **modular shopfitting systems.** Currently produces custom-made shopfittings and display equipment. Subsidiaries specialize in electrical contracting, heating and ventilation. In business for 10 years, has 200 employees. R. Case, Mng. Dir., Timber Tailors Midlands Ltd., Lillington Road, Bulwell, Nottingham NG6 8GH. P-76639.

2800—ISRAEL—Interested in negotiating turnkey agreement with U.S. firms experienced in building of **"tank farms".** Agreement should include purchase of materials, know-how, planning and actual erection on the spot. Firm is planning to build a "tank farm" at Hakishon Port, Haifa, comprised of 35 storage tanks with total capacity of about 25,000 cubic meters. Tanks will range from 50 to 2,000 cubic meters and will be used for storing **liquid chemicals and various oils.** Piping network will be installed to cover about 1.5 kilometers in order to receive and dispatch chemicals from "tank farm" to ships at Hakishon Harbor. Subsidiary of Chemovil Ltd., a commission agent for manufacturers of chemicals and special liquid chemical road tankers. G. Traub, Project Mgr., Bulk Chemicals Ltd., P.O. Box 70, Haifa. Telex: 46736; Cables: CHEMOVIL Haifa. WTDR. P-76674. OPIC.

2819, 3369, 3499—FRANCE—Seeks technology to manufacture any **industrial products made from zinc or complementary to zinc.** Items that could be used in building industry, chemical industry, etc. Established in 1837, employs 5,000 and produces all types of zinc ingots, alloys, powders, etc. M. Pierre Jacolin, Marketing Mgr., Societe des Mines et Fonderies de Zinc de la Vieille Montagne, 19, rue Richer, 75442 Paris Cedex 09. P-76640.

2822 — NEW ZEALAND — Firm seeks know-how to produce **carpet padding made from polyurethane foam.** Also interested in producing **sheet polyurethane foam for bonding to upholstery fabrics.** E. R. Christiansen, General Manager, Combined Projects Consultants, 101 Glenmore Rd., Pakuranga, Auckland. Telephone: 566-993. P-76641.

3011, 3714—UNITED KINGDOM — Manufacturer of **tire valves, tire repair materials, pressurizing valves, binder rods and tire repair equipment** is interested in licensing arrangement to produce similar items. Established 1961, employs 330. Reports annual sales of $5 million. J. L. Barlow, Commercial Development Mgr., Bridgeport Brass Ltd., Ballinderry Rd., Lisburn, Northern Ireland BT28 2SD. P-76642.

3079 — BELGIUM — Seeks licensing arrangement for production of **small household plastic products** such as vegetable washers, salad dryers, french fry cutters, etc. Established 1929. Presently manufactures compression molds for thermosetting plastic parts and phenolic laminated sheets and tubes. Firm also produces mica paper and insulating products. Exports worldwide. Employs 360, annual sales volume approximately $15 million. Michael de Vree, Marketing Mgr., COGEBI, Huysmanslaan 65, 1660 Lot. Telephone: 02/376.00.80, Telex: 25586. P-76643.

3079—GERMANY — Manufacturer of **injection-molded plastic products,** e.g., technical precision parts, consumer products,

etc., is looking for proven or promising product systems or lines, either industrial or consumer, in plastics field to expand present sales program. Preferably line of products should be of high quality, covered by license. Necessary sales activity is in every case negotiated. Cooperation may take the form of negotiation of license against payment of royalties or direct purchase of know-how by non-recurring payment. License would be primarily for Federal Republic of Germany. Company has its own highly qualified departments for product conception, design, hand-made prototypes, mold construction, mold-making, surface treatment, product assembly, and dispatch service. All known thermoplastics are used; molded parts with metal inserts or inserts of other materials are produced in long runs with automatic feeding devices) and short runs (manually inserted). Interested parties write H. Voelker, Woellner-Werke, Postfach 211 469, D-6700 Ludwigshafen. (Copies of initial correspondence should be sent to German-American Chamber of Commerce, 666 Fifth Ave., New York, N.Y. 10019). P-76667.

3079—UNITED KINGDOM—Seeks technology through a license or joint venture to **manufacture products in thermoplastic field.** Firm produces specialized products for paint and plastic industries. Has facilities available for dry blending of pigments and polymers and can produce colored masterbatches in range of polymers. Company recently opened new plant to compound wide range of thermoplastic except PVC. Established 1867, employs 40. J. McMillan, Dir., Whitfield & Son Ltd., Chemicals Div., 23 Albert St., Newcastle, Staffordshire ST5 1JP. P-76644.

3316—AUSTRALIA—Western Australian State Government Department of Industrial Development is investigating possibility of setting up **plant to upgrade black steel bars and shaftings to bright steel grade.** At present time black steel bars are brought to Western Australia from plants located in eastern portion of Australia. Proposed plant would recondition these bars and make them usable in modern numerically controlled machines. Interested in obtaining information on types of machinery required, prices and operation technology. E. R. Gorham, Coordinator, Department of Industrial Development, GPO Box D160, Perth, WA 6001, quoting reference number 121/76. P-76676.

3357—JAPAN—Large electric wire/cable manufacturer seeking license to manufacture **non-ferrous metal fine wire.** Also seeking information on applications of fine wire. Of particular interest is technique to manufacture copper, aluminum and/or other non-ferrous metal fine wires in sizes below 100 microns and interested in sizes between WPATP microns. Has paid-in capital of $20 million. Operates five factories in Tokyo and Osaka areas. Representative will be in U.S. for 3-4 week period beginning Sept. 20. Hiroshi Inouye, Dir., R & D Administration Department, Dainichi-Nippon Cables, Ltd., Umeda Building, 7-3 Umeda-cho Kita-Ku, Osaka 530. Cable: DNCABLE OSAKA; Telex: 222-3146. P-76673.

3400, 3500—UNITED KINGDOM—Manufacturer, employing 250, seeks licensed manufacturer of U.S. **agricultural engineering products** for autonomous engineering division. Product could be tool manufacture for farming or forestry or

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

alternatively bulk or liquid processing equipment, with which this company technology is compatible, i.e., machine tools, work feeding systems, machine knives, general engineering and fabrication. Has extensive worldwide sales coverage. R. Balty, Mng. Dir., Henry Rhodes Ltd., Green Lane, Sheffield S3 8SG. P-76669.

3423—INDIA—Firm interested in manufacturing forged hand tools with American know-how. Currently manufactures rolled steel products such as steel rods, reinforced bars, wire rods, and structural steel. Proposal envisages production of 2,500 metric tons annually of **hand tools such as spanners, pipe wrenches, screwdrivers, pliers and electronic tool kits** working on two 8-hour shifts. Total cost estimated at approximately $1.8 million. A. K. Pandey, Rolta Industries (Pvt.) Ltd., Rolta Nagar, Bombay-Agra Road, Indore, Madhya Pradesh 452 001. P-76670. OPIC.

3433—FRANCE—Seeks licenses to manufacture **solar heaters, principally water heaters and heating systems for greenhouses.** Presently produces and installs display shelves and equipment for stores and road signs. Marketing territory covers France, Algeria, Tunisia and New Caledonia. Employs 50, plus 10 salesmen. Enjoys good commercial reputation. Michel Couton, President Director General, Societe d'Usinage Rationnel, Zone Industrielle, 06510, Carros. P-76646.

3442—UNITED KINGDOM—Firm seeks to manufacture under license **window fittings, door fittings, security and safety articles** pertaining to construction industry. Operates as manufacturer/distributor/agent of builders hardware, etc. Current annual sales volume $4 million. Employs 180. J. E. Douglas, Mng. Dir., Arthur Shaw Mfg. Ltd., P.O. Box 21, Rose Hill, Willenhall, West Midlands WV13 2AS. P-76647.

3443—BELGIUM—Firm is interested in manufacturing under license **tanks used in petroleum industry.** Specializes in construction of all kinds of metal plate tanks, pressure vessels, processing equipment, heat exchangers, etc. in ferrous and non-ferrous metals. Also is engineering firm and contractor for erection of storage tanks, sewage treatment plants, etc. Employs 1,000. Van Nitsen, Sales Engineer, Granges Graver S.A., 107 Molenweg, 2660 Willebroek. Telex: 31293. Telephone: 031/86.71.11. P-76648.

3469, 3631, 3632, 3633—GREECE — Assembler of T.V. sets, stereo equipment and household washing machines seeks to expand present line. Desires licensing and/or joint venture arrangement for production of **small household appliances,** e.g., toasters, mixers, juice extractors, electric irons, etc. Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76649. OPIC.

3500 — NETHERLANDS — Seeks long-term licensing or joint venture agreements to produce wide range of equipment. Product interests include **meat, poultry and offal processing and preparation equipment; chemical manufacturing machinery; and electro-static precipitators, fabric filters, mechanical collectors and wet scrubbers for emissions collectors.** Has 380 employees, reports sales of around $15 million. Part of large international Dutch machinery manufacturer. Prime marketing areas are Europe and Middle East. J. W. Horsmans, Stork Velsen BV, P.O. Box 55, Beverwijk. Telephone: (02150) 29090, Telex: 41087. P-76650.

3500—UNITED KINGDOM — Seeks license or similar arrangement to fabricate and assemble equipment for **material handling** industry. Products which serve a large existing market or are new to U.K. of particular interest. Presently produces mechanical parts for cableways and conveyors and special purpose handling machinery. Also, is engaged in precision machining of diesel engine components. Annual sales $1 million. John R. Stewart-Smith, Marketing Dir., Glover Group Ltd., Mossley, Ashton-under-Lyne, Lancashire OL5 9NE. P-76651.

3523—SOUTH AFRICA—Seeks licenses to manufacture **agricultural implements and machinery, particularly potato planters, diggers and graders.** Also **harvesting machinery.** Presently, makes combines, corn shellers, peanut pickers and shellers, and agricultural sprayers. Also supplies spare parts for equipment, plus delivery and normal servicing. In addition to manufacturing, markets mobile combines and pumps. Henry H. Plen, Administrative Mgr., Nigel Plen (Pty.) Ltd., P.O. Box 111, Nigel 1490. WTDR. P-76672.

3540—GERMANY — Very large German manufacturer seeks **cross licensing agreements for production of special tool machinery.** Offers licenses for manufacture and distribution of its line of ultra precision tool machinery. Comprises electronically-controlled internal and face grinding machines, abrasive cut-off machines and other custom tool machines. Used mainly in automotive, gear and steel industries. Also interested in high technology tool machinery fitting into its line. Has 21 branch plants and numerous other affiliates. Sells on worldwide basis. Excellent financial and business reputa-

tion. Buderus Vertrieb Maschinenbau, Buderus'sche Eisenwerke, Postfach 1220, D-6330 Wetzlar. Telephone: 06441-73782, Telex: 483851 Budw d, Cable: Budeuswetzlar. P-76652.

3551 — NETHERLANDS — Established manufacturer of egg grading, sorting and packaging equipment wishes to diversify. Seeks joint venture or licensing arrangement for production of **food processing and/or packaging equipment.** Also interested in licensing its equipment in U.S. Established 1925, employs 125. Subsidiary of large European conglomerate Thyssen-Bornemisza. Additional information from Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. C. Regoort, Mng. Dir., Staalkat B.V., Hofstraat 14, Aalten. P-76653.

3551, 3585, 3589 — SWITZERLAND — Firm seeks manufacturing licenses in following fields: **small steam cookers; connection ovens; commercial display refrigerators; commercial food and raw materials processing; equipment involving electric heat process; dehydrating apparatus.** Currently manufactures commercial food equipment. Heinz Mueller, Therma Catering Equipment Sursee Ltd., POB 253, CH-6210 Sursee. P-76654.

3559 — GERMANY — Seeks licenses to produce and/or assemble **specialized machinery and equipment for chemical, nuclear, pharmaceutical, cosmetics and packaging industries.** Can provide engineering, design, production and distribution facilities. Sales territory includes West Germany and other EEC countries. Herr H. W. Bachmann, Mgr., Ehvak Maschinen GmbH, Industriestrasse 17, 6056 Heusenstamm. Telephone: 06104-3312. P-76668.

3573—SWITZERLAND—Seeks to manufacture under license **intelligent terminals for commercial, banking applications and industrial controls.** Distributor of electronic data processing systems. Employs 30. Dr. Etienne B. Rivat, Pres., Rivat Techniques and Informatics, P.O. Box 121, 1213 Petit-Lancy, Geneva. Telephone: 022/92 34 56. P-76655.

3585—TAIWAN—Seeks joint venture or license to produce **air-conditioners, spare parts or components** for room and central air-conditioning units. Interested domestic and export markets. Has been engaged in manufacture of parts for air-conditioners for 17 years. General manager plans to attend International Machine Tool Show in Chicago Sept. 8. Interested companies write or cable immediately to: Y. T. Wang, Gen. Mgr., Kingdom Industry Co., Ltd., 3rd Floor, 48 Kuang Fu North Rd., Taipei 104, Cable: KINDIN; Telephone: 781-3435. P-76671. OPIC.

3600—GERMANY—Company engaged in development, production and marketing of special electrical, electronic parts and devices seeks joint venture. Wants to assist U.S. firms in introducing **electrical-technical-electronic** equipment to German market. Also, will consider **measuring and testing equipment.** Prepared to make necessary changes to adapt American equipment to German standards. Well managed firm, good reputation. Ing. Alfred Kichner, Elektroapparatebau (Engineering Co.), Stockackerweg 3-3A, P.O. Box 3014, D-7750 Konstanz (Bodensee). Telephone: 07531/62936, Telex: 733 278. WTDR. P-76656.

3600—UNITED KINGDOM — Manufacturer and/or distributor of electronic connectors and assemblies, crimp tools, wire and cable seeks licenses. Is interested in making products suitable for either **aerospace or electronics industries.** Firm supplies these industries in EFTA and Common Market areas. Represents several U.S. firms. J. M. Turner, Mng. Dir., Miles Roystone Ltd. Priory Works, Mansfield Woodhouse, Mansfield, Notts NG19 9LN. P-76657.

3612—SCOTLAND — Small firm seeks license to manufacture **high quality, industrial type, low-voltage transformers.** Presently produces transformers, electric test lamps. Markets throughout U.K. H. Dunbar, Mng. Dir., John Drummond (Engineers) Ltd., Bellcrag Works, Dalsholm Road, Maryhill, Glasgow G20, 0TG. P-76658.

3662—BRAZIL—Leading Sao Paulo importer/retailer of photography/sound equipment and ophthalmic goods wishes to negotiate with American manufacturers an agreement to pioneer production of **citizens band radio equipment** in Brazil. Agreement could take form of simple licensing arrangement or some other type of association, including possible joint venture. Represents various foreign firms, including American and Japanese, and retails electronic equipment and components through 18 shops in Sao Paulo and Rio de Janeiro. Also provides complete range of services. In past, has retailed imported CB radios with rapid success and is certain of growing demand. Flavio Mendes Bitelman, Dir., Fotoptica S.A., Rua Cons. Crispiniano 53, 110 andar, 01037 Sao Paulo (SP). WTDR. P-76659. OPIC.

3679—UNITED KINGDOM — Seeks to manufacture **printed circuit boards** under license. Presently produces printed circuit boards; is approved manufacturer to British Ministry of Defense and British Post Office. Employs 40. D. R. Wills, Mng. Dir., A & E Instrumentation Ltd., The Power House, Headstone Lane, Harrow, Middlesex HA3 6NL. P-76661.

3679 — UNITED KINGDOM — Seeks licensing agreements to make **coil and transformer windings, solenoids, transducers, component encapsulation and printed circuit board assemblies.** Manufactures electronic components, is subcontractor for electronic assemblies. Annual sales $3.25 million, employs 300. E. F. Smith, Mng. Dir., E. I. H. Electronics Ltd., Green Lane, Dronfield, Sheffield S18 6LL, Yorkshire. P-76662.

3711, 3713, SOUTH AFRICA — Manufacturer of commercial vehicle bodies; small buses, trailers; wrecking bodies; earth-moving machine cabs, seeks licensing arrangements with U.S. firms for manufacture of **specialized bodies, cabs and van equipment** and particularly for specially sealed **equipment to handle specialized chemicals; products requiring cooling or refrigeration and corrosive liquids.** Firm employs 200 and has design staff of seven draftsmen. Cooper & Cooper (Pty) Ltd., P.O. Box 2583, Johannesburg, 41 Baldwin Road, Village Deep, Johannesburg 2001. Telex, 8-6262; telephone 001-834-6261. P-76591.

3732—INDIA—Boat manufacturer is interested in locating U.S. technical collaborator to aid in designing boats and expanding firm's four-year old plant in Mangalore, South India. Wishes to concentrate on special types and sizes of **glassfiber-reinforced plastic boats.** India's only commercial manufacturer, distributor and exporter of large-sized glassfiber-reinforced plastic fishing trawlers. Its small boat plant in Mangalore has annually manufactured 40 glassfibered fishing trawlers, launches, yachts, lifeboats and other craft up to 38 feet. Annual capacity is 144 crafts. G. D. Jatia, Dir., Gladstone Lyall & Co., Ltd., 4 Fairlie Place, Calcutta 700001. Cable: GLADSWYLL; tel: Bucandi CA 7510. P-76675. OPIC.

3799—UNITED KINGDOM—Small company which operates as manufacturer/distributor/importer/exporter of trailers and accessories is interested in manufacturing under license **detachable trailers and allied products.** Derek Godfrey-Brown, Jr., Mng. Dir., Loddon Trailer Services Ltd., Sherdon House, Sherfield-on-Loddon, nr. Basingstoke, Hants. P-76663.

3820—CHILE—Firm seeks joint venture partner to acquire **Empresa Nacional de Instrumentos de Precision (ENAPRI)**, which will be auctioned on Oct. 13. ENAPRI was established in 1973. At least 20 percent of total offer is required as down payment, remainder in installments over four years beginning date of sale. Feasibility study indicates that price is approximately $1,500,000, including firm's debts. ENAPRI manufactures precision instruments such as micrometers, depth meters, altitude meters, etc. Overseas Products and Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76677.

3823 — UNITED KINGDOM — Seeks license to manufacture **digital clocks** and **digital read-out equipment.** Presently produces electronic digital clocks. E. F. Smith, Mng. Dir., European Electronic Counting Ltd., Green Lane, Dronfield, Sheffield S18 6LL. P-76664.

3832, 3861—KOREA — Firm seeks licensing or joint venture arrangements to produce **optical goods such as binoculars and microscopes and cameras.** Company currently produces fine crystal under German license, sells and processes film and engages in import/export operations. Additional information from Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76592. OPIC.

3861—UNITED KINGDOM — Manufacturer of **microfilm equipment, coding cameras, readers, specialized calculators and air control units**, seeks licensing agreement for manufacture of items complimentary to its present range. Established 1965. P. E. Rowledge, Mgr. Dir., Microfilm Equipment (Manufacturing) Ltd., Unit 9 Napier Place, Thetford, Norfolk IP24 3RL, England. WTDR. P-76596.

3961—AUSTRIA—Firm seeks to diversify and would like to represent U.S. **costume jewelry** manufacturers on European market. Presently produces floor, wall and ceiling coverings. Inku AG, P.O. Box 145, A-1011, Vienna. P-76665.

4511—INDIA — Aviation firm is seeking U.S. partner for **offshore and onshore helicopter services.** Company, which owns a fleet of four Bell 47-G5 helicopters and hangre facilities at Bombay and Madras airports, is planning to start new service on contract to Indian Government-owned Oil and Natural Gas Commission (ONGC) and foreign private oil firms operating off Indian coast. Services envisaged by Indian concern include personnel and freight transportation to off-

shore oil rigs and drilling ships, ocean tanker resupply, pipeline construction operations and other helicopter services required by oil industry. In addition, firm plans to handle offshore jobs such as pipeline laying, erection of transmission towers and transportation of cargo calling for helicopter use. To undertake project, firm is seeking an American company either to work as partner, to lease helicopters and crew on five-year fixed payment basis, or to enter into five-year contract with Indian firm to work together on predesignated contracts. In any arrangements concluded, U.S. participant will have to provide adequate number of helicopters of required sizes, trained crew, spare parts, and assume responsibility to train local crew in handling specialized offshore and onshore assignments. Indian company is open to alternate proposals that American firms may offer. It is equipped to provide local operational facilities including repair and maintenance and logistical support. H. P. Rao, Chmn., Pushpaka Aviation Private Ltd., Vashani Chambers, 47 New Marine Lines, Bombay 400 020. WTDR. P-76598. OPIC.

7379—**PHILIPPINES**—Seeks joint venture in **computer equipment leasing and encoding**. Encoding service would involve sending source data to Manila in microfilm. Data would be edited and encoded on magnetic tape and returned to U.S. client. Filipino firm is also interested in **exclusive representation for used and second hand computers/EDP equipment**. It presently services EDP requirements of its parent organization, largest pharmaceutical company in southeast Asia, and provides contract services for other firms. Benjamin A. Santos, Gen. Mgr., Data Processing Service Corp., Greenfield Bldg., Shaw Blvd., Mandaluyong, Rizal. P-76605. OPIC.

8911—**GERMANY**—Firm of international engineering consultants seeks to cooperate with qualified U.S. consultants in areas of **power generation and distribution**. Prefers to work in Middle East and other third world countries. German company employs 300, specializes in power generation, distribution and water desalination. Is well managed, financially sound. Horst H. Papenfuss, Dir., Lahmeyer Int'l. GmbH, Beratende Ingenieure, Lyoner Strasse 22, D-6000 Frankfurt/Main-71. Telephone, 0611-66771; telex, 413478 li d; cable LINECTRA FRANKFURT-MAIN. P-76593.

Israel-America Chamber Plans Tel Aviv Workshops

To acquaint U.S. business with Israeli products and government incentives for foreign investors, the Israel-America Chamber of Commerce and Industry Ltd. is sponsoring an Israel-America Business Week, "Opportunity '77," in Tel Aviv, Feb. 20-25, 1977.

The program will include workshops in several product areas including electronics, metals, textiles, chemicals, commercial and financing services, and transportation. Israeli businessmen and government leaders will be on hand to present information on the Israeli economy, foreign trade and business relationships, among other topics.

Interested firms should contact the American-Israel Chamber of Commerce and Industry Inc., 11 East 44th St., New York, N.Y. 10017.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2248), referring to the appropriate file number.

GERMANY—Manufacturer of **built-in kitchens** offers to enter into arrangement under license or joint venture with American firms to manufacture in U.S. Firm is open to discussion about partners, form of investment, and location of site. File 3089

GERMANY—Firm offers to license technology of patented process for **operation of air ships** as well as patented method for **transportation of natural gas and similar gases by airships**. File 3090

GERMANY—German firm wishes to offer for production under license in U.S. its system for **plastic and steel armored pipes, fittings and tanks made of glass** for chemical plants. File 3091

GERMANY—Firm has expressed interest in establishing production facility in U.S. to manufacture **stamped steel or plastic formed parts, boxes, cases, plugs**, etc., for automobile, electronic, cable, computer, machine tool and chemical industries. Form of investment open for discussion. File 3092

GERMANY—Firm wishes two-way licensing partnership with American firm for production of various types of **building products**—mortar additives, adhesives, plaster, putty, concrete coatings, lacquers and low heat insulation materials. File 3093

GERMANY—Firm offers licensing and joint venture arrangement for **high-voltage components**, including line transformers, rectifiers and boosters for use in radio and television receivers. Also interested in obtaining U.S. licenses for production and distribution of same type of equipment in Germany to complement its existing line. Is manufacturer of high-voltage parts and components and traffic lighting equipment. File 3094

GERMANY—Manufacturer of **wire cloth** for sifting purposes in chemical, paper and food processing industries, as well as in waste water and sewage beds, has expressed interest in establishing production facility in U.S. that will employ approximately 50 unskilled workers. Form of investment open to discussion. File 3095

GERMANY—Firm is interested in offering its **trailer hitches** for production under license in U.S. Claims advantage of its hitches is that they have new detachable coupling ball with quick-locking safety device. Device is protected by patents in several countries including U.S. File 3096

AUSTRIA—Firm is interested in licensing arrangement to manufacture **lighting fixtures for commercial purposes**. Seeks manufacturer of converted sheet metal work. File 3097

CANADA—Firm is interested in licensing arrangement to make their **plastic suspended ceiling T-bar systems** used with ceiling panels, primarily for recreation rooms. Main components are main T's (8-foot lengths normally), cross T's (2-foot lengths normally) and main T supports. Many major building home centers now carry this system. Recreation-room building specialists are particularly enthusiastic. File 3098

FINLAND—Firm seeks to license **lighthouse and navigation channel markers** developed in Finland, which are substantially cheaper to construct than current systems. Type of firm they seek may now be manufacturer in marine construction contracting, or supplier to marine construction industry. Nature of cooperation subject to negotiation. Company is most interested in joint venture or license arrangement. File 3099

FRANCE—Manufacturer of PVC cables and various electro-metallurgical products seeks U.S. partner interested in manufacturing under their license its **electrical cables**. File 3100

FRANCE — Inventor has developed a **device** which he claims will absorb bad odors in toilets, and is seeking U.S. manufacturer. File 3101

FRANCE—Substantial manufacturer of **bicycle accessories, chiefly tire repair kits**, seeks joint venture for production in U.S. of existing and possibly related lines. French firm prepared to invest up to $5 million in U.S. project. File 3102

GERMANY—Firm offers for production under license in U.S. its **sealing compound**. Some advantages reported are fast formation of protective skin which avoids dirtying of surfaces, and diminished risk of cracks when exposed to early strain, quicker curing of sealing phase, small dimensioned joints. File 3103

GERMANY—Manufacturer of needles of all types is interested in granting licenses to American manufacturers for production in U.S. of its **tufting needles and patented plastic bobbins, cones, and tubes for textile industry**. File 3104

GERMANY—Firm offers licenses for production of **packaging equipment**, designed for packaging of materials of different shapes and sizes, on pallets, securing and protecting package by means of shrinking tight plastic sheetings. Suitable for automobile spare parts, plastic articles, general stores and other goods of various sizes and shapes which have to be combined into one package. File 3105

GERMANY — Firm offers licenses for manufacture of **molded plastic products and polypropylene specialties** in construction and furniture industries. File 3106

GERMANY—Firm offers licenses for production and distribution of its line of **ultra-precision tool machinery** — electronically-controlled internal and face-grinding machines (stepping motor), abrasive cut-off machines, and other special types of custom-tailored tool machines using versatile control devices. Predominantly used in automotive, gear and steel industries on worldwide basis. File 3107

GERMANY—Firm is offering its **curtain and drapery rods and fixtures** for production under license in U.S. Product is ceiling-mounted drapery rail combination that can handle up to three layers of drapes without additional rail. File 3108

GERMANY—Firm is interested in locating potential licensee for manufacturing three patented products in U.S. — **door frame, sash and foil**. File 3109

GERMANY — Manufacturer wishes to establish production facility in U.S. for

stamped or pressed steel or plastic formed parts, boxes, cases, plugs, etc. for automobile, electronic, cable, computer, machine tool and chemical industries. Interested in majority interest or 100 percent acquisition of existing enterprise or joint venture. File 3110

GERMANY — Firm offers patent rights for its "Equiplus-System" for U.S. firms on licensing basis. This is a **display system consisting of glass panels** which can be easily put together into a large variety of showcases by means of a special but simple connecting device. Claimed to be attractive and a space-saver suitable for stores and private homes. File 3111

GERMANY — Manufacturer is seeking licensee in U.S. for manufacture of newly-developed **revolving-base device for residential television sets.** Consists of four rollers with rigid axle alignment which allows set to rotate 360°. U.S. patent is pending. File 3112

GERMANY—Firm offers licenses in exchange for know-how for production of **hard plastic food trays** for use in hospitals, restaurants, and homes. In particular, interested in selling a license to produce trays in which cold and hot foods are insulated from one another. Well-established firm, in this type of business for many years. File 3113

GERMANY—Firm offers license and exchange of know-how for production of motor-driven, alternating-current **electric generators** geared toward building industries. Also interested in obtaining licenses from U.S. firms for production of these generators in Germany. File 3114

GERMANY—Firm offers license and exchange of know-how for production of **electric welding equipment.** Also interested in license from U.S. firms for production of same in Germany. File 3115

GERMANY — Firm wants to purchase complete miniaturized **sparking units for electronic lighters** from U.S. With output voltage of 8 kv's at spark gap of 2.66 mm, units should operate on customary 1.5 v. batteries or on 2.8 v. lithium batteries. Dimensions, excluding batteries, should be about 14 x 14 x 50 mm. File 3116

GERMANY—Manufacturer of **cigarette lighters** offers license and know-how to manufacture and sell same in U.S. German firm will supply certain components, particularly lighter fluid reservoirs, which require specialized machinery for production. File 3117

GERMANY—Inventor has developed a **system to produce leather fiber materials from waste leather.** Leather fiber materials are produced from fibers from waste leather which has been tanned with mineral and/or vegetable agents and other different materials, then bonded with synthetic binder. Sheet eventually formed is dried with gasoline fluid at about 100°C. then impregnated with elastomer. Resulting product is finished, and if desired, cut to shape. File 3118

GERMANY—Inventor, who has patented an improved **disc brake system** for motor vehicles, is interested in locating U.S. licensee. In the system, brake disc is fixedly mounted and brake shoes are mounted to be axially displaceable. Inventor claims system is simple in structure, extremely reliable and safe, and longer lasting than conventional disc brakes with only minimum of maintenance and service required. File 3119

GERMANY — Manufacturer wishes to form joint venture with American firm to manufacture their product, which is a **new method for time data registering for attendance timing, job timing and access control.** File 3120

GERMANY—Manufacturer of machines and apparatus for building industry is interested in granting license for its **gypsum slab production system** for building industry. Firm claims its system, which includes machinery, apparatus and plant design for producing the slab, is the only one of its type in Germany. Reportedly has advantages over other systems, including cheaper production costs, lower manpower requirements, and more durable slab than conventional product. File 3121

GERMANY—Manufacturer of **steel shoring plates for use in pipe-laying operations** is interested in joint-venture agreement with U.S. firm for manufacture of its products in U.S. German product, it is claimed, enjoys following advantages over existing U.S. systems: simplicity and lower manpower requirements for installation, increased worker safety, easy maneuverability of plates, and lower production costs. Firm indicates a preference for 50-50 ownership agreement with small manufacturer or manufacturer of metal containers, steel forms or shapes or metal products for building industries. File 3122

GERMANY — Firm offers licenses for manufacture and distribution of **plastic children's play furniture,** made of high pressure polyethylene and produced under rotary sintering process. Furniture design is patented in U.S. File 3123

GERMANY—Manufacturer of chemical products for pharmaceutical and textile industries seeks joint venture U.S. partner for production and distribution of its new patented **building material** in U.S. According to manufacturer the product is derived by a revolutionary process of liquefying silicates and can be used as a paint, coating material or impregnating compound, and for street markings and as mortar substitute for laying bricks. Further claimed that product is waterproof, grease and oil resistant, entirely adhesive, washable, quick-drying, easy to apply and does not flake or crack. Can be produced in many colors and applied with a brush or spray. Firm seeks joint venture with U.S. building products' manufacturer with large sales and existing distribution network. File 3124

GERMANY—Firm offers licenses for production and distribution of **hydro-pneumatic drive units, pressure transmitters, energy transformers,** for multi-purpose industrial applications. German firm has applied this patented technology to stamping presses and strip cutters resulting in drastic reductions in weight, floor space and noise levels, and providing for maximum degree of accuracy for dimension of punched pieces. U.S. firm should be machinery manufacturer. File 3125

GERMANY — Firm is interested in U.S. licensee for manufacturing automatic and semi-automatic **lacquering systems** and also automatic **lacquering and drying plant.** File 3126

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Heavy construction

• **16200—GREECE**—Ministry of Agriculture invites firms to prequalify to bid for construction of IBRD-financed E. Vermion Irrigation Project (second phase). Interested firms must provide information on: experience; list of similar projects carried out; list of technical personnel, equipment, and plant; and financial position, to Ministry of Agriculture, Land Reclamation Service, 46 Chalkokondyli St., Athens (102). Request for proposals will later be issued to prequalified firms. Projects financed with IBRD assistance. Prequalification deadline Nov. 2.

Drugs

• **28340—SRI LANKA**—Closing date for No. DHS/7/5 has been extended to Sept. 3.

28340—AFGHANISTAN — Health Ministry will be requesting offers on a list of pharmaceutical products valued at ap-

proximately $2 million. For further information, contact Commercial Attache, American Embassy, Kabul.

2834719, 2834731—**BRAZIL**—Jose Ernesto Vellutini, Agrofarma Importadora E Exportadora Ltda., Rua Dos Ottonis 558, 04025 Sao Paulo (SP), requests offers on one metric ton of injectable vitamin C and ten metric tons of injectable anhydrous glucose per month, on a continuing basis, for resale.

Steel mill products

• 33100—**BANGLADESH**—Gas line pipe fittings including tees, caps, saddles, nipples, unions, plugs, couplings, flanges, gaskets in various sizes and quantities. Tender No. 2312/314; bid deadline Oct. 13. Titas Gas Transmission and Distribution Co., Ltd., 7 Motijheel Commercial Area, Dacca 2. Tender documents available from above address at TK 250 (about $16.84).

Rolling, drawing, extruding of nonferrous metals

• 33500 — **INDIA** — 2 kms. underground cable, paper core quad trunk, armored cable 24/40 lbs. Tender No. CDN/ENG/67; bid deadline Sept. 23. Director General, Posts & Telegraphs, Parliament St., New Delhi 110001. Tender documents available at above address at 20 rupees ($2.74).

Fabricated structural metal products

• 34400—**ST. KITTS, WEST INDIES**—Tenders are invited from suitably qualified manufacturers for supply of one prefabricated all-steel modular building of 5,000 sq. ft. in area measuring 100 ft. x 50 ft. Specifications are available from Manager, Development and Finance Corp., P.O. Box 249, Basseterre, St. Kitts, West Indies. Tenders should be forwarded by airmail in sealed envelopes marked "Tender for supply of steel fabricated building Ref. 1", and forwarded to above address by Sept. 21. Drawings and other documents accompanying tenders are not returnable, and Development and Finance Corp. reserves the right not to accept the lowest or any tender.

Construction, mining, materials handling machinery, equipment

• 35300, 36200, 37100 — **PHILIPPINES** — National Irrigation Administration invites firms to bid for supply, delivery to site within 5 to 6 months, assembly, servicing and making operational the various construction equipment and utility vehicles which shall include tractors, cranes, backhoes, loaders, graders, vibratory rollers, truck tractors, lube trucks, station wagons, pick-up trucks, ambulance, jeeps, dump trucks, stake trucks, concrete mixers, generators, forklift trucks, fuel and water tank trucks, mobile shop truck, concrete vibrators, pumps and shop equipment and tools, for Chico River Irrigation Project. Government has received loan from World Bank in various currencies towards cost of project. Bids will be accepted only from or on behalf of manufacturers of well-known brands of construction equipment and utility vehicles whose offices and/or manufacturing facilities are located in member nation of World Bank including Switzerland and who can provide suitable assurance that spare parts and service facilities will be in Philippines when needed. Manufacturers or representative interested in bidding must obtain contract documents upon nonrefundable payment of U.S.$25 per copy from: National Irrigation Administration, NIA Special Projects Off., NIA Bldg., National Government Center, Epifanio de los Santos Ave., Diliman, Quezon City, Philippines D-738, Cable: NIAPHIL, Manila. Bidders will be required to submit, together with proposals, qualification data which will indicate manufacturer's capacity to provide service support and spare parts inventories in Philippines. Manufacturers will be permitted to bid on individual items. Bid deadline Oct. 20.

Special industrial machinery

• 35500—**ALGERIA**—The State Electricity and Gas Corporation is seeking firms for the supply and installation of 1,000 machines of various types and auxiliary equipment for production of parts at air, water and gas meter plant located in El Eulma (Wilaya of Sefif), Eastern Algeria. French tender documents are available for 1,000 DA ($441.68) from; Direction de Transport du Gaz, SONELGAZ, Blvd. Salah Bouakouir, Algiers; Cable: SONEG DG ALGER; Telex: 52898. Closing date for submission of bids Oct. 15. All correspondence must be in French. For additional information contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington D.C., 20230; 202-377-4441. Also, please send copy of all correspondence to Pete Zantal.

3559541—**TAIWAN**—Machinery & equip. for making activated clay: capacity 2,000-3,000 tons/mo. Reaction tank, 3 sets: PB lining—60 rpm, 15-20 kl. Temp. 120 degrees C by 30-40 percent of H2SO4 solution. Screw decontor (continuous centrifuge separator), 4 sets: in syrup—10-20 percent of clay syrup. Outpowder—80-90 percent clay powder. Capacity 7-10 cu. meter/hr. of clay powder. Flash dryer, 2 sets: in powder—10-20 percent H2o of clay powder. Outpowder—3-5 percent H2o of clay powder. Capacity 10-12 tons/hr. Mill, 2 sets: 250-300 mesh 90-95 percent. Capacity 7-10 tons/hr. activated clay. Buyer has plant in Kingshan, suburb Taipei, mfg. activated clay about 100 tons/mo., selling to salad oil plants, petroleum industry, wine making factory & chemical refining processors. Contact buyer ASAP, providing catalogs & prices. Reply to—S. Y. Fang, Gen. Mgr., Asia Industry Co., Ltd., 4th Floor, 6 Sungchiang Rd., Taipei 104. Tel 5710538.

General industrial machinery

3569961 — **SWITZERLAND** — Automatic sprinkler systems for fire fighting. Mfr. hand-fire extinguishers. Also reps foreign fire prevention & fire fighting equip. producers. Capable handling installation & servicing of systems. Mr. Ponti, Pres., Ponti, S.A., Ave. Des Alpes 60, 1820 Montreaux, Telex 25563 Ponti CH.

Office, computing, accounting machines

3572020—**CANADA** — Used typewriters, IBM Selectrics, or equal, & all manuals. Retails office furniture & business equip. in greater Victoria area, with population of approx. 250 000. In business 14 yrs., has 9 employees & estimates sales in low to mid 6-figure range. Services what it sells. Bank ref. states firm can be considered responsible for commitments. All electrical devices imported must meet Canadian Standards Assn. requirements. Reply to D. Schroyen, Asst. Mgr., Island Business Machines Ltd., 691 East Burnside, Victoria, BC. Tel 604-384-7148.

3572020—**CANADA**—Used manual typewriters. Small retail co. selling office furniture & business equip. in greater Victoria & lower Vancouver Island area, with population of approx. 300,000. In business 12 years, employs 10. Retails 2 major U.S. lines through Canadian wholesalers, and services what it sells. All electrical devices imported must meet Canadian Standards Assn. requirements. Reply to Blaine Rowlett, Pres., City Office Equip. Ltd., 721 Kings Road, Victoria, B.C. Tel 604-386-8396.

• 35790—**BELIZE**—The Clerk, National Assembly, Independence Hill, Belmopan, Belize has issued tender for supply of voting and registration systems equipment (21 machines) capable of preparing voters list. Purpose is to permit mechanization and supervision of voting system. Copy of specifications available from above address.

Service industry machines

• 35853—**IRAQ** — Government requests bids on supply and construction two cold storage units for seed potatoes (capacity 6,000 tons) in Baghdad (Sweira) and Sulamania (Sharozo) including all mechanical, electrical, civil and refrigeration work, transformer house, water

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

supply system, guard room, control room with scales, boiler, restaurant, street lighting, and all related civil work excluding roads and fences. Tender number 505/01/T-19. Specifications available for $85, non-refundable. Cable Director of Purchasing, State Farms Administration (SFA), Ballaween near Sindibad Cinema Saadoon St., Baghdad. Essential that all correspondence use Administrative Reference No. 7/1976. Bid deadline Sept. 18. Price to be quoted C&F Baghdad and Sulaimania.

Electrical industrial apparatus

36241XX — UNITED KINGDOM — Electrodes. Anxious to contact U.S. suppliers of carbon or graphite electrodes for steelworks, graphite solids, granules & powders for recarburisers. Carbons, zircon and other foundry products. Reply to—P. D. H. Richards, Dir., David Hart (Feckenham) Ltd., Berrow Hill, Feckenham, Redditch B96 6QS, Tel: 052-784-503.

Household appliances

3639961—JAPAN—Household trash compactors. Small but active trading firm, handling U.S. Curity Brand diapers as sole ag. for Japan, as well as U.S.-made casual wear for children & teenagers. Has inquiry for $500,000 worth of household trash compactors from Ginowan City Housing Corp. Needs catalogs, f.o.b. prices ASAP. Marketing territory is Okinawa & South area of Japan mainland. Annual sales 1975 $1.12 million. Employs 22. Speaks good English. WTDR 7/76. Reply to—Teisho China, Pres., China & Trading Co. Inc., P.O. Box 35, Ginowan, Okinawa, Japan. Cable Chnaoki, Ginowan, Okinawa.

Communications equipment

• **36610 — SAUDI ARABIA** — Sheikh Ismail M. Hurreh, English Department, College of Education, King Abdulaziz University, Mecca, has issued tender for supply of language laboratories, including broadcasting and library systems, teaching aids and equipment. Requests U.S. firms send catalogs, prices and other details.

• **36610, 36620—ALGERIA**—Ministry of Information & Culture, 119 rue Didouche Mourad, Algiers, has issued the following tenders: 1) Tender no. 370-E for supply of two Hertzian beam TV vehicles, with accessories, bid deadline Sept. 30; 2) Tender no. 56 for supply of 130 electronic page teleprinters, 60 for transmitting and receiving, 30 for receiving only, 20 automatic transmitters and 20 broadcasting platens, bid deadline Sept. 25; 3) Tender no. 369-E for supply of one television news vehicle equipped with one instantaneous playback device, bid deadline Sept. 15. Copies of specifications available at $24.17 each from RTA, Direction des Services Techniques et de l'Equipment, 21 Blvd. des Martyrs, Algiers, Telex 52042.

• **36620—ALGERIA**— Direction de l'Administration Generale, Ministere de l'Information et de la Culture, 119 Rue Didouche Mourad, Algiers, has issued tender no. 378/E for supply of four TV instantaneous playback devices, and accessories, bid deadline Oct. 15; and tender no. 342/E for supply of video equipment for three broadcasting studios, bid deadline Oct. 16. Copies of specifications available from R.T.A., Direction des Services Techniques et de l'Equipement, 21 Blvd. des Martyrs, Algiers, for 100 DA (U.S. $23.92) each tender.

• **36620—ALGERIA**—Monsieur le Chef des Approvisionnements, SNTF (Ststa Railways Corp.), 21-23 Blvd. Mohamed V, Algiers (cable: SNCFA alger; telex 52851) has issued tender no. 72-02 for supply of 200 automatic electrical road barrier systems for railroad track crossings. Bid deadline Nov. 2. Correspondence in French required. Copy of specifications available from address above for DA 170 (approximately U.S. $40).

• **36620—ARGENTINA** — Servicios Electricos Del Gran Buenos Aires (SEGBA), Av. Paseo Colon 275, 6° Piso, 1063 Buenos Aires, has issued tender no. 3284 for supply and supervision of construction and start-up of teleprotection equipment for 132 KV power transmission network. Requirements include: 26 transmitters and 26 receivers as well as auxiliary equipment and spare parts for maintenance during first ten years. Bid deadline March 7. Copy of specifications available from above address for 500 Argentine pesos (U.S. $1.00 equal to 247 Argentine pesos as of Aug. 5).

• **36620—INDIA**—Directorate General of Supplies & Disposals, Parliament St., New Delhi-110 001, has issued tender no. CDN/ENQ/78 (ES-5/210/35/062/6.7.76/CELL - 297) for supply of 18 console tape recorders conforming to A.I.S. Spec. No. SSE-349-5; 30 heavy duty tape decks conforming to Spec. No. SSE-369-2; and 70 portable tape recorders conforming to Spec. No. SSE-350-7. Bid deadline Sept. 17. Bids should be sent to address above. Copy of specifications available from Supply Wing, Embassy of India, 2536 Mass. Ave., NW., Washington, D.C. 20008 for non-refundable fee of $4.65. Checks should be made out to Embassy of India, Washington, D.C. Receipt for tender fee must be attached to quotations submitted.

Electrical machinery, equipment, supplies

3699261 — ECUADOR — Dingdong doorbells. Purchase potential will depend upon attractiveness of price quotations. Send literature & quote c&f Guayaquil against L/C or S/D. Requester is one of leading local builders' supply importers. Sales 1975 $3 million. Staff 35. Excl. ag. & distr. Reply to—Mrs. Joyce Ginatta, Gen. Mgr., Mercantil Importadora Sucesores A. Ginatta C.A., P.O. Box 5124, Guayaquil. Cable Ginatta; phone 3-01022.

Instruments for measurement, analysis and control

• **38240—BANGLADESH**—General Manager, Titas Gas Transmission & Distribution Co. Ltd., "Dilkusha Court", 7 Motijheel Commercial Area, Dacca - 2, Bangladesh (Cable: Titagas Dacca) has issued tender no. ADM 2312/314-REG. for supply of gas transmission equipment and materials including 6182 regulators, 202 meters, 100 strainers and various quantities of testers, gravitometers, portable detectors, pressure and gauge indicators, etc. Bid deadline Oct. 11. Tender financed by Asian Development Bank Special Loan Fund. Copy of specifications available from address above for non-refundable TK 300 or equivalent (about $20.21).

• **38240—PHILIPPINES**—General Manager, Metropolitan Waterworks and Sewage Systems, Attention: Project Manager, Room 301, 176 Arroceros St., Manila, has issued tender for supply of 102,000 ⅝-inch, 34,000 ¾-inch, and 4,000 1-inch cold water meters for residential consumption registering. Bid deadline Sept. 30. Procurement limited to member countries of Asian Development Bank and Luxembourg. Firms with more than 30 percent foreign equity must comply with Section 4 of Republic Act No. 5455 which requires prior written authorization from Board of Investments before participation in public biddings. Copy of specifications available from above address for 500 Philippine pesos.

• **38250—MALAYSIA** — Senior Purchasing and Contracts Officer, National Electricity Board, Head Office, P.O. Box 1003, 129 Jalan Bangsar, Kuala Lumpur, has issued tender no. 13617 for supply of 150,000 single-phase, 2-wire, 240V, 50 Hz, 10 (max. 50) amps, AC, electricity meters. Additional 50,000 units may also be required. Bid deadline Oct. 8. Tenders invited only from manufacturers or their accredited agents. Copy of specifications available from address above for non-refundable fee of M $100 (U.S. $1 equals approximately M $2.50). Check or bank draft should be payable to Chief Accountant.

Optical instruments, lenses

3832120—AUSTRIA — Nuclear magnetic resonance instruments. Dir. sale & agency. Medium-sized importer/distr. of computer peripheral equip., analytical, measuring & ind. process instruments. Engineering & repair service are rendered. Interested in agencies for Austria, Yugoslavia & E. European countries. Documented offers with f.o.b. East Coast port quotations requested. Open account terms of payment preferred. Reply to—H. Jeschki, Mgr., Universal Elektronik Import, Zeltgasse 3-5, A-1080 Vienna. Cable Elektronikimp; tel 0222/422358; Telex 75011 Eltro A.

Surgical, medical, dental instruments

• **38410—TURKEY** — (Ministry of Defense) Milli Savunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, has tender for supply of medical equipment and supplies including prosthetic organs workshop materials, cardiology, gynecology, obstetry, microbiology, eye clinic, narcosis, radiology, plastic surgery, etc. equipment. Bid deadline Sept. 23. Bids must state delivery period (4-month minimum), prices in terms of f.o.b.-c.i.f. Istanbul, and payments terms. Copy of specifications available in English from above address.

• **38430—MALAYSIA**—Secretary General, Ministry of Health, Young Rd., Kuala Lumpur, has issued tender for supply of dental items. Bid deadline Sept. 7. U.S. firms wishing to bid should do so through local, established agents in Malaysia. Copy of specifications available locally by agents for American suppliers.

Photographic equipment, supplies

38610—GERMANY—Still cameras, process cameras for photoengraving, studio, etc., projectors, enlargers and other processing, developing and printing equipment. Request c.i.f. German port, metric measurements only. Reply to Herr Karlheinz Wuestefeld, Foto Kino Wuestefeld, Kantastrasse 117, D-1000 Berlin 12. Telex 0185 607, Telephone 030 883-7593.

Textile remnants

59310XX—TOGO—Used clothing. Centrally located & primarily engaged in importing textile goods incl. knitted fabrics & nylon goods. Annual sales vol-

ume about $81,000. Provide price quotations c.i.f. Lome. Employs 33. Dir. sale for resale & rep. Reply to Charles Kwashie Tsagla, Dir., Union Togolaise Pour le Commerce et l'Industrie. BP 4107, Lome. Tel 57-81.

59310XX—TOGO—Used clothing. Deals mainly in used clothing, textile remnants. Wishes to import leatherette & slightly used platform shoes. Price quotations c.i.f. Lome. Field staff 15. Located central commercial area. Dir. sale for resale & rep. Reply to Ejim O. Kalu, Dir., Harmony International Corp., BP 3155, Lome. Cable Harmony Lome.

5931XXX—EGYPT—Off-season, out of fashion, new and used garments in bulk, and material remnants. Prepared purchase unlimited quantities and requests prices c.i.f. Alexandria. Reply to—Gaber Hussein, Degla Nile Co., 8, Halim Square, El Azabakiah, Cairo, P.O. Box 907. Tel. 905987.

Services

89100—BAHAMAS—Government is applying to World Bank for loan for a $32 million water supply and sewerage project for New Providence Island. Proposals invited from specialized firms for five consultant contracts related to project. They are: (1) leak detection and measurement, (2) distribution network analysis and storage requirement study, (3) well-field design and construction supervision, (4) ship survey, dock and harbor improvement, and (5) sanitary sewer design and construction supervision. Interested firms should contact: Richard C. Whitehead, General Manager, Water and Sewerage Corp., P.O. Box N8156, Nassau.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Plastic products

3079071—SWITZERLAND — Plastieware for use in commercial food serving, restaurants, kitchens & snack bars. Excl. distr. Market territory Switzerland. Small to medium wholesale distr. of hotel & restaurant equip. & supplies except machinery. Annual sales SF 1 million. Employs 5, 1 salesman. Recommended trade contact. Reply to Georges Dietschy, Mng. Dir., Hapag AG, Bahnhofstrasse 29/33, Ch-5000 Aarau. Cable Hapag Aarau; tel 064/24 26 41.

Glass products

3231633 — SWITZERLAND — Table, kitchen, art & novelty glassware for hotels & restaurants. Excl. distr. Market territory Switzerland. Small to medium wholesale distr. of hotel & restaurant equip. & supplies except machinery. Annual sales SF 1 million. Employs 5, 1 salesman. Recommended trade contact. Reply to Georges Dietschy, Mng. Dir., Hapag AG, Bahnhofstrasse 29/33, Ch-5000, Aarau. Cable Hapag Aarau; tel 064/24 26 41.

Special industrial machinery

3559589—FRANCE—Shot & vapor blast equip. for metal. Estab. 1975. Mfr. (subcontracting) & distr. of surface treatment equip. Bank reference Banque Nationale de Paris, 93 Drancy. Would consider mfg. equip. under license. Reply to—A. Marechal, Gen. Mgr., Abral, 13, Rue Danton, 93700 Drancy. Telex 220 429F; Tel. 834-5082.

General industrial machinery

3569126—SOUTH AFRICA — Automatic industrial self-adhesive label applicators. Excl. rep. Subsidiary of giant U.K.-based Ozalid Intl. & is leading distr. of office equip. in South Africa through its Banda Div., affiliate co., Block & Anderson. Now wishes to diversify supply sources. Excellent trade partner for U.S. companies. Reply by airmail to—H. G. Harrison, Group Mkt. Mgr., Ozalid (SA) (PTY) Ltd., P.O. Box 58, Kempton Park 1620. Cable Ozalid; tel 011/975; telex 8-6330.

Household appliances

36312XX—NETHERLANDS — Gas cooking equip. for use on yachts. Excl. distr. for Benelux. Specializes in yachting & related equip. Estab. 1964. Reply to L. de Waal, Mgr., Exalto BV, Peulenstraat 213, P.O. Box 40, Hardinxveld (Gld), Netherlands. Cable Exalto; telex 23658; tel 01846/2785.

Engineering, laboratory, scientific, research instruments

3811389 — AUSTRIA — Laminar flow benches. Med.-sized ag/distr. of scientific & lab instruments. Interested in ag arrangements for Austria. Doc. offers with c.i.f. European port quotations requested. Terms of payment subject to agreement. Reply to—Alfred Gracej, Mgr., Labin Gmbh, Diehlgasse 37, A-1050 Vienna. Tel (222) 5562014.

Optical instruments, lenses

3832135—JAPAN—Infrared viewers for use in preventive maintenance of industrial machinery. A leading importer/distr. of canned goods, hides, skins, leather goods, light aircraft, machine tools, scientific instruments. Machinery section which handles machine tools & scientific instruments incl. vibration analyzers is composed of 2 electronics engineers, 3 salesmen. Believes it can sell infrared viewers to users of machine tools & vibration analyzers for preventive maintenance of their equip. in operation. Product brochures & quotations requested. Reply to—H. Mokunaka, Chief, Machinery Section, Nozaki & Co., Ltd., 16-19, Ginza 7-Chome, Chuo-Ku, Tokyo 104. Cable Nozaki Tokyo; tel 03-542-9211.

3832139—BELGIUM — Binocular microscopes on which cameras can be mounted. Recently started own business which has scientific div. & another for industrial paints. Claims to be well introduced in Belgian universities. Looking for U.S. microscopes not yet rep. on Belgian market. Reply to—C. Theo Lemmens, Owner Mgr., Firma Lemmens Grote Steenweg 50, 2600 Berchem. Tel. 031/397362.

Motion pictures

7813XXX—CANADA—8mm., super 8 and 16mm. movies, all subjects, sound and silent, black and white, and color. Importer & distr. of all types of photo equip. Wishes make contact with U.S. major producers, and/or mfg. of above. Subjects of film may include science fiction, comedy, sports, & popular full-length productions. Plans to market these, throughout Canada, through intensive mail-order program, & to fill requests for rentals from schools, churches, etc. Carl McDonald, Dir., Amicanda Ltd., P.O. Box 670, Station B, Montreal, Quebec. Tel (514) 482-4067.

Special product groups

9950014—UNITED KINGDOM — Do-it-yourself items. Estab. 1946. Employs 200 with 30 salesmen. Mfr. laminated chipboard & polyurethane products & imports & distributes range of do-it-yourself products, building materials & products for furniture trade, mainly supplied to do-it-yourself trade. Also imports & distributes air-conditioning equip. In addition to premises at below address, has mfg. depot in London & 7 warehousing depots throughout U.K. Reply to—Stuart Harris, Dir., Allied Mfg. Co. (London) Ltd., Sarena House, Islington Park St., London N1 1QD. Tel (01) 226 3333; telex 23719; cable Allpas.

9950025—AUSTRIA — Housewares. Medium-sized import/export co. for building materials, sanitary equip., house and

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

garden supply & do-it-yourself items. Interested in negotiating agency arrangements. Documented offers with c.i.f. European port quotations requested. Open account terms payment preferred. Reply to—Werner A. Simlinger, Liselotte Simlinger, Schwanthalerg. 11, P.O. Box 39, A-49k0 Ried/Innkreis. Cable Afaimpex; tel 7752-4293.

Saudi Firm Seeks Partner

A Saudi Arabian firm is seeking a joint venture partner to manufacture kitchen cabinets for use in mass-produced housing. Established 1925, has 250 employees. Is importer, agent and distributor of general merchandise with prime interest in household appliances and building materials and supplies. Also manufactures air conditioning units and aluminum doors and windows. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. WTDR. P-76569. OPIC.

Kuwait Needs Trade Catalogs

The Kuwait Technological Institute is establishing a trade school offering a three-year post-high school training program and is interested in receiving catalogs from manufacturers of a variety of workshop equipment.

For information contact Terry Rettig, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265. Catalogs should be airmailed directly to: Kuwait Technological Institute, P.O. Box 2993, Kuwait, Attn: Mohammed Said Mohammed Ali; or Ministry of Education, P.O. Box 5641, Safat, Kuwait, Attn: Dr. Ali Shuaib.

Syria Wants Joint Venture

A Syrian firm seeks joint venture to manufacture air conditioning units, plans 2,000 to 3,000 units annually, 16,000 BTU's initially. Syrian firm can provide land, plant, capital. Seeks 49% or more U.S. participation. Mazen Chacra, Ass't. Gen. Mgr., Jamil Chacra Co., Fardoss St., Damascus. P-76601.

Future Construction Abroad

ALGERIA—This notice corrects and amplifies announcement regarding tender for extension of **Hassi R'Mel-Arzew gas pipeline** (Commerce America, Aug. 16, pg. 35). Tender is for installation of five pumping stations which will expand flow-through capacity of the 40-inch line. Tender documents available to interested companies for 1,000 DA (approximately $240) from: SONATRACH, 10 Rue du Sahara, Hydra, Algiers: telex: SONEC 52375 DZ. Offers must be submitted in French by Oct. 1.

ISRAEL—Bulk Chemicals, Ltd., Haifa, was recently established to build and operate a **chemical tank farm** in Haifa. Project is to comprise 35 storage tanks, with total capacity of 25,000 cubic meters for chemicals and oils, including molasses, edible oils, and lubricants, and 1.5-kilometer piping network from tank farm to ships at Hakishan Harbor. Bulk Chemicals is interested in negotiating a turn-key agreement with U.S. firms experienced in building tank farms. Interested companies contact G. Traub, Project Manager, Bulk Chemicals Ltd., P.O. Box 70, Haifa; telex: 46736; cable: CHEMOVIL Haifa. Please send copies of correspondence to: Cherie Loustaunau, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-4441. OPIC.

GREECE—The Institute of Geological and Mineral Research (IGME) has programmed for 1976 an aerial geophysical (magnetic) **survey on radioactive and bauxite potential** at a cost of $2.2 million. IGME stated that selected number of French, German, other European, and U.S. aerial survey firms will be called directly within the next few months to offer proposals to conduct survey under contract with IGME. IGME suggests that interested firms provide copies of their brochures directly to: General Director, Institute of Geological and Mineral Research, 70 Messogeion St., Athens 608. OPIC.

MOROCCO — The National Railway Agency is seeking qualified firms to supply, install and put into operation **5 fixed sub-station traction groups, 1 mobile traction group on rails, 1 railroad remote control center.** Project to be financed by Moroccan Central Government Investment Budget. Specifications and technical documents may be obtained for DH 50 (approximately $11) from: Service Materiel et Traction (Bureau Technique) ONCFM, 19 Ave. Allal Ben Abdallah, Rabat (Telex: FERRABAT 31 907 M). This call for bids is the first of a series for the electrification of all new railroad lines. The first firm to be awarded such a contract has a better chance to win additional ones. Correspondence in French preferred. For additional information contact Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-4441. Also, please send copy of all correspondence to same address. OPIC.

IRAQ — Yugoslav firm PKB has been awarded contract for first phase of 20,000-hectares, vertically-integrated, capital-intensive, **agri-industrial complex** at Dujaila. Phase One will consist of land preparation, water management, turnkey design, procurement and initial management of two cattle farms, two sheep farms and growing of animal nutrients. U.S. participation as consultants, suppliers of **machinery, livestock and technology** welcome. Firms interested in specific aspects of project should contact Pete Zantal, 202-377-4441.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance to U.S. construction firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's construction insurance program, write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-1854.

Visiting Buyers & Officials

NEW ZEALAND—P. J. Crellin, Managing Director, John Dee Ltd., P.O. Box 2194, Auckland L1, will visit the United States for four weeks to contact American **insurance companies to discuss systems and operations, and to explore the possibility of associations** in New Zealand in cases where U.S. firms do not have representatives. Crellin arrived on Aug. 27 and will visit Los Angeles, Phoenix, Miami, New York, Denver and San Francisco. John Dee Ltd. is a known and experienced firm of insurance brokers and is a good business contact. This buyer may be contacted directly or through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

SWITZERLAND—George E. Oren, textile broker from Geneva, is interested in being contacted by U.S. manufacturers of **indigo denims.** Requirements are finest quality fabric in weights between 13¾ and 14¾ ounces, in widths of 40 inches and over, lots of between 200,000 and 300,000 yards a month. He may be contacted through Terry Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

AUSTRALIA—Cedric Hansen, Australian Hide Processing Industries Pty. Ltd., Sydney, will be in Kansas City and St. Joseph's, Missouri, last week of August. He is interested in **hide curing activities and associated machinery.** Contact him through U.S. Department of Commerce, Foreign Buyer Staff, Room 2322, Washington, D.C. 20230, 202-377-3265.

NETHERLANDS — Mrs. H. D. Schaap, buyer for HEMA BV, Amsterdam, is interested in hearing from manufacturers or suppliers of **molded cups, lace and elastic fabric for foundation garments.** HEMA BV operates 66 of its own department stores and franchises 58 others. She may be contacted through Terry Rettig, 202-377-3265.

ECUADOR—Pedro Hansen-Vik, owner of Valhan, P.O. Box 497, Guayaquil, is interested in hearing from suppliers of **radios, radio-phonograph combinations, television receivers and electric housewares.** Appliances should be 60 cycle, 110/120 volts a.c. TV's should be to U.S. standards. He may be contacted directly preferably in Spanish or through Terry Rettig, 202-377-3265.

ECUADOR — Victor H. Cobo, President, Azuay Province Small Industrialist Assn., P.O. Box 797, Cuenca, is interested in contacting suppliers of **new or used small metalworking machinery, new or used small textile-making machinery in the 60 cycle, 110/120 volt a.c. range.** Also as Manager, Prominan, P.O. Box 800, Cuenca, he is interested in contacting suppliers of **new or used centrifugal separators to segregate silica from mined kaolin, a new or used separator to segregate steam from mined kaolin in the 60 cycle, 220 volt, three-phase range.** He may be contacted through Terry Rettig, 202-377-3265.

NIGERIA—Ayodele Akinsanmi, a U.S.-educated pharmacist, will be returning to

Nigeria in December and is interested in becoming a distributor for **antibiotics, contraceptives, anti-bacterials and hospital equipment such as disposables, wheel chairs and hospital beds.** His U.S. address is 5524 Eighth St., NW., Apt. 8, Washington, D.C. 20011, 202-291-4212, or contact Terry Rettig, 202-377-3265.

NIGERIA — John Adeleke, Western House, 8th floor, Lagos, is interested in hearing from manufacturers or suppliers of **auto spare parts.** He may be contacted directly or through Terry Rettig, 202-377-3265.

IRAN—Mohammed Alborzi, pharmacist and owner of a drugstore and pharmacy in Bandarablas, is interested in becoming an exclusive Iranian distributor for **baby care products, cosmetics and pharmaceuticals.** He may be contacted through Terry Rettig, 202-377-3265.

YUGOSLAVIA — Six managers of the Alumina Division of the Yugoslav Enterprise Energoinvest are planning a visit to the U.S. Oct. 2-23. Energoinvest wishes to manufacture **aluminum windows, door frames, roofing, siding, fencing and similar goods.** Purpose of the trip is to see this process in operation and talk with U.S. suppliers of this equipment. They estimate final purchases will be a minimum of $250,000. Companies may contact the Energoinvest group through U.S. Department of Commerce, Foreign Buyer Program, Frederica Parks, Room 2322, Washington, D.C. 20230, 202-377-3265.

IRAN—Abbas Saniie, 219 West Takhte-Tavoos Ave., Tehran, is interested in hearing from U.S. manufacturers or suppliers of **housing construction materials, i.e., drywall, kitchen cabinets, paneling, doors, wall paper, floor tile, etc.** For further information, Ali Rezaii, 1501 George Mason Dr., Apt. 2, Arlington, Va. 22203, 703-280-1926, may be contacted. Brochures and other related information may be sent to Terry Rettig, Foreign Buyer Program, Room 2322, Washington, D.C. 20230, 202-377-3265.

COSTA RICA—Tobias Rosencraig, Manager of a well-known shoe store in San Jose, is investigating the possibility of manufacturing California-type (lightweight) **shoes** in Costa Rica for sale in the Central American Common Market. Brochures on machinery and other related information may be sent through Betty Patrick, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

TAIWAN—Henry H. Tsai, President of Orient Industries Ltd., Taipei, seeks agency representation for **electronic components, shoemaking machinery, pharmaceuticals, cosmetics, laboratory chemicals, hot-stamping foils and consumer goods.** He plans to be in the U.S. for several weeks beginning the end of September. His U.S. contact address is c/o Harry Fishlow, Vice President, Perfect Fit Industry, Inc., 313 Fifth Ave., New York, N.Y. 10016, 212-679-6656. Terry Rettig, 202-377-3265.

SWEDEN—Borje Ingvarsson of Bitex, Borje Ingvarsson Textile AB, N. Kungsgatan 7, S-371 00 Karlskrona, seeks agency representation for **ready-made cotton or cotton synthetic sports clothes** such as T-shirts, trousers and sport jackets for men, women and teenagers. Ingvarsson will visit New York for approximately two weeks beginning Sept. 14. While there, he may be reached at the Abbey Victoria Hotel, 51st St. and 7th Ave., 212-246-9400, or through Betty Patrick, 202-377-3265.

INDIA—M. B. Bhaskare, Mng. Dir., Greaves Cotton Co. Ltd., 1 Dr. V. B. Gandhi Marg., Bombay 400023, will visit the U.S. to locate suppliers of **oilfield equipment and supplies.** Greaves represents several U.S. firms in this field but is interested in handling additional product lines with a view to providing an integrated supply service to the Indian oil drilling industry. Greaves is a leading Indian firm with combined manufacturing and marketing operations. Bhaskare is also a knowledgeable contact for U.S. firms planning investment and/or licensing operations in India. He will arrive New York Sept. 26, Los Angeles Sept. 28, and Houston Oct. 4. He may be contacted through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

Petrochemical Project Under Way In Alberta

Construction has commenced on the first phase of a C$1.26 billion petrochemical manufacturing complex in Alberta, Canada, following a recent agreement among the Alberta Gas Trunk Line Ltd., the Alberta Gas Ethylene Co. Ltd. (a subsidiary of AGTL), Dow Chemical of Canada Ltd., and Dome Petroleum Ltd.

Some of the more highly specialized equipment will be imported from the United States, although the Alberta Government states that equipment and labor must be Albertan wherever possible. Such items as compressors and other similar products are expected to be of U.S. origin. Much of the engineering processing package will be prepared in Houston. Inquiries from potential U.S. suppliers should be directed to A. G. Warke, Vice Pres., Alberta Gas Ethylene Co. Ltd., Box 9150, Bow Valley Square No. 2, 205 Fifth Ave. S.W., Calgary, Alberta T2P 2W4, Canada.

This project is based on the manufacture of ethylene from the ethane component of Alberta natural gas. The C$350 million ethylene manufacturing plant currently under construction at Joffre, Alberta, will have an initial capacity of 1.2 billion lbs. of ethylene annually. All but 50 million lbs. will be purchased by Dow Chemical for use in Alberta. The remainder will be consumed in other derivative manufacturing ventures in Alberta.

The four-company agreement also concerns the construction of pipelines to transport ethane to Joffre, and the Cochin Pipeline to transport surplus ethylene and ethane to eastern Canada and the United States. Other elements of the overall development include facilities to manufacture vinyl chloride monomer and ethylene oxide-ethylene glycol from ethylene in the Ft. Saskatchewan area (Dow), and a plant to further process the vinyl chloride monomer into polyvinyl chloride in the Ft. Saskatchewan area (Diamond Shamrock Canada Ltd., and Alberta Gas Trunk Line). Negotiations among companies involved in the extraction of ethane from Alberta's natural gas streams reportedly are at an advanced stage.

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Dallas, 75202, Room 7A5, 1100 Commerce St. (214) 749-1515.

Denver, 80202, Room 165, New Custom House, 19th and Stout Sts. (303) 837-3246.

Des Moines, Iowa, 50309, 609 Federal Bldg., 210 Walnut St. (515) 284-4222.

Detroit, 48226, 445 Federal Bldg., 231 W. Lafayette (313) 226-3650.

Greensboro, N.C. 27402, 203 Federal Bldg., W. Market St., P.O. Box 1950. (919) 378-5345.

Hartford, Conn., 06103, Room 610-B, Federal Office Bldg., 450 Main St. (203) 244-3530.

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Houston, 77002, 1017 Old Federal Bldg., 201 Fannin St. (713) 226-4231.

Indianapolis, 46204, 357 U.S. Courthouse & Federal Office Bldg., 46 E. Ohio St. (317) 269-6214.

Los Angeles, 90049, Room 800, 11777 San Vicente Blvd. (213)824-7591

Memphis, 38103, Room 710, 147 Jefferson Ave. (901) 521-3213.

Miami, 33130, Rm. 821, City National Bank Bldg., 25 W. Flagler St. (305) 350-5267.

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Minneapolis, 55401, 218 Federal Bldg., 110 S. Fourth St. (612) 725-2133.

New Orleans, 70130, Room 432, International Trade Mart, 2 Canal St. (504) 589-6546.

New York, 10007, 37th Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

Newark, N.J., 07102, Gateway Bldg. (4th floor) Market St. & Penn Plaza (201) 645-6214.

Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

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Phoenix, Ariz., 85004, 508 Greater Arizona Savings Bldg., 112 N. Central Ave. (602) 261-3285.

Pittsburgh, 15222, 2002 Federal Bldg., 1000 Liberty Ave. (412) 644-2850.

Portland, Ore., 97204, Room 618, 1220 S.W. Third Ave. (503) 221-3001.

Reno, Nev., 89502, 2028 Federal Bldg. 300 Booth St. (702) 784-5203.

Richmond, Va., 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

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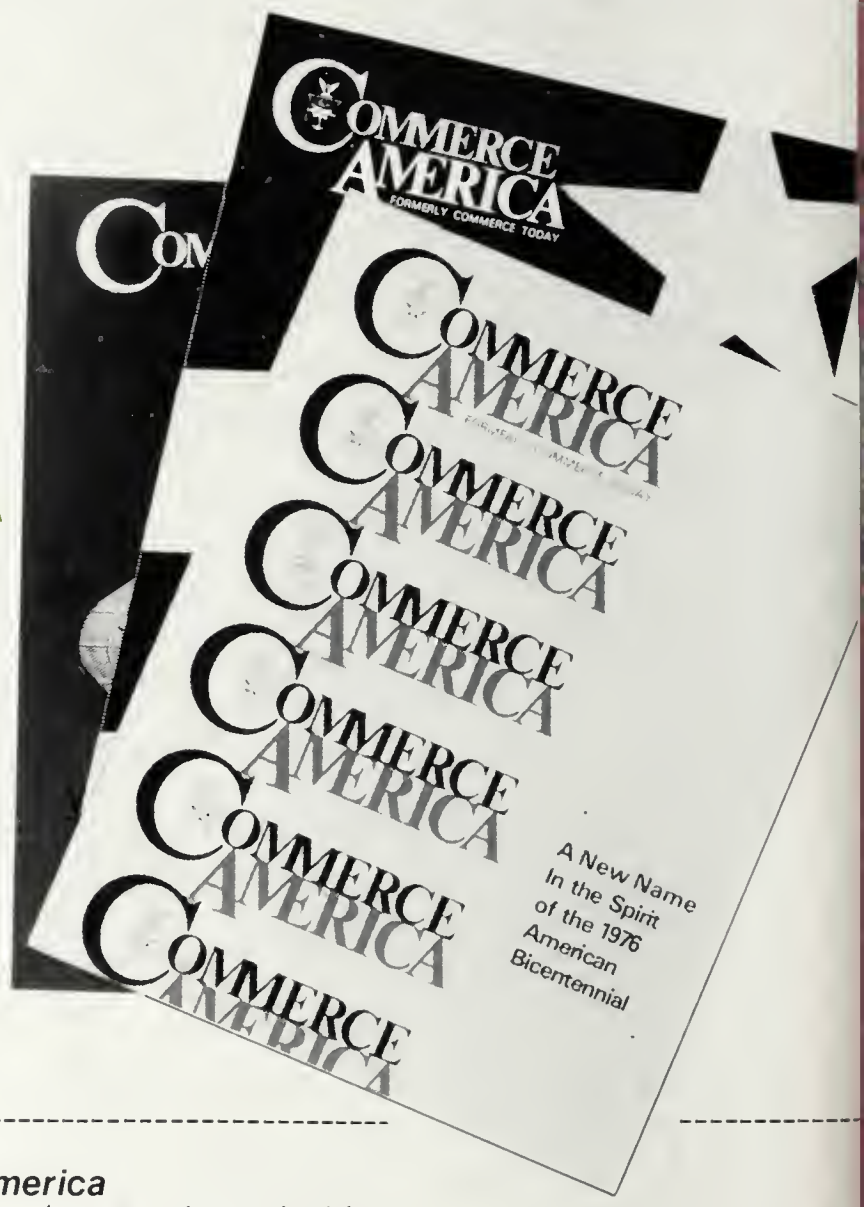

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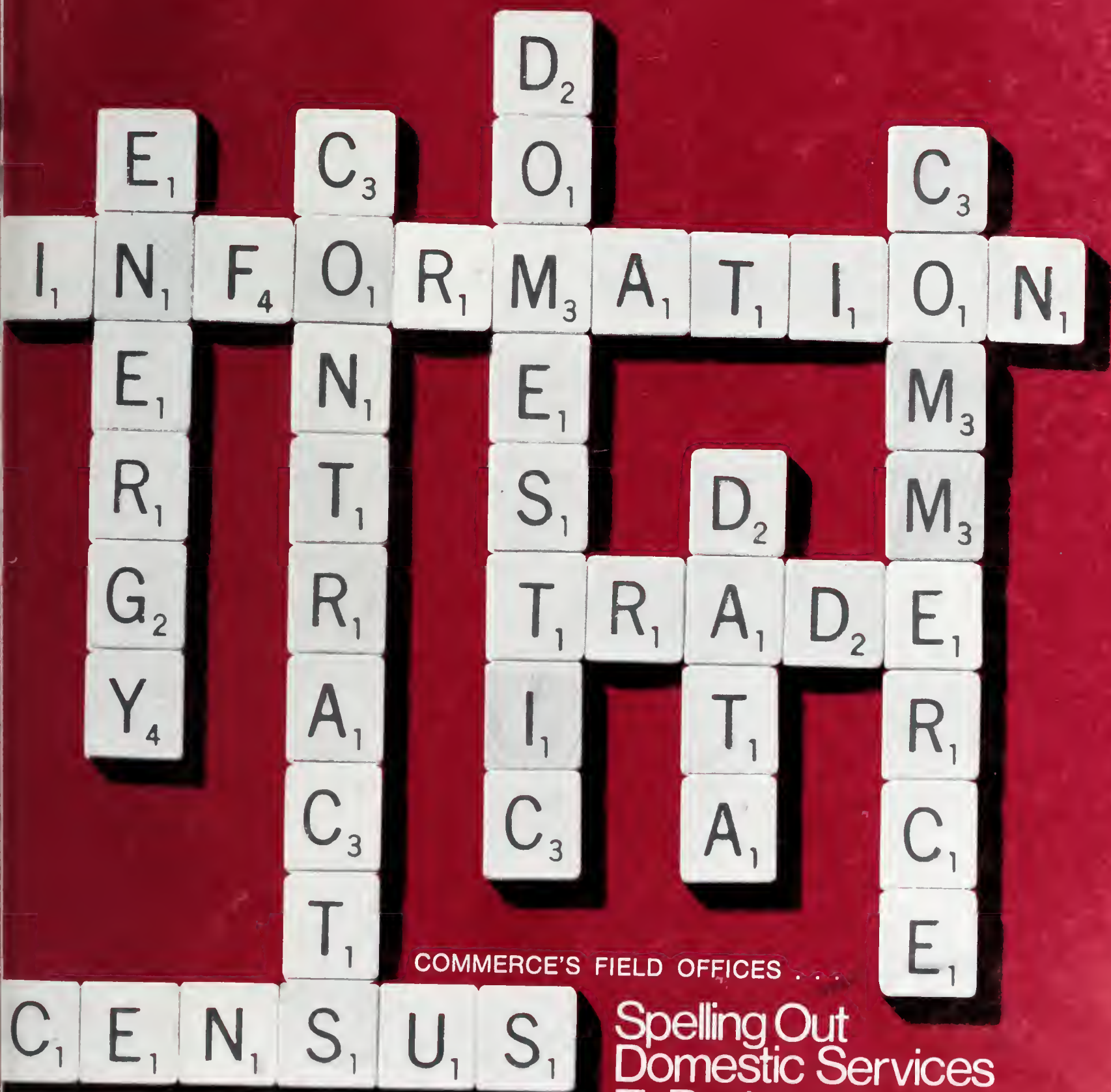

COMMERCE'S FIELD OFFICES . . .

Spelling Out Domestic Services To Business

Newsmemo

An Eximbank for Latin America? This was one of the proposals put before a Latin American Export Promotion Conference held last month in Caracas. Dr. Felipe Herrera, former head of the Inter-American Development Bank, was its author. He believes such an institution could build up the economic relationships between the countries of the Americas and the rest of the "Third World" developing nations. Under his proposal, the institution would provide export financing and export insurance either on its own or through existing means. A substantial part of the necessary resources, he believes, could be obtained from public international and Latin American capital markets.

Half Hour A Day For The U.S.A. That theme is a reminder to employees of the Alton Box Board Co., at Alton, Ill., and 50 other locations, to spend a few minutes keeping informed on public issues and transmitting their views to governmental and business leaders. "This idea is not new," explains company head Edwin J. Spiegel, Jr.; it is an effort to return to the kind of town-hall democracy that often gets swamped by the complexities in today's big government and big business. He also comments that "it is really too big a job for any company to tackle alone. We'd welcome the chance to talk with any organization that might be interested in using our ideas and materials."

The consumer who is determined to get satisfaction on an appliance complaint has been profiled. Such a complainant is middle aged, white, from the upper income and schooling levels, and lives outside central urban areas. The Major Appliance Consumer Action Panel, a unit that works with consumers and top industry authorities, has received this profile from an outside team that recently audited its work. The panel accepts it as a challenge to try to reach the low-income, less-educated central city consumer not now using its services. MACAP is supported by appliance makers and retailers as a last-resort aid to consumers who believe that dealers, service agencies or producing firms have not responded to their complaints.

Code authorities are widening their acceptance of plastic materials. Barriers to construction and industrial use continue to be removed. Plastic is found in telephone line conduits, agricultural irrigation pipe, water, utility and gas lines, sewers and drains, waste and vent pipes, and piping for industrial uses, all in competition with metals. Here's a growth index: 1965, 200 million pounds; 1970, 637 million pounds; 1973, 1.6 billion pounds. Most recently, shipments in May 1976 showed a 49 percent increase over May 1975.

The cost impact of mass production, in a nutshell: At their introduction in 1972, solid state electronic watches sold for $2,100. By January 1975 prices were down to $125, with a further decline six months later to $40. This January two semiconductor companies announced plans to market digital watches at $19.95 apiece. Currently semiconductor manufacturers predict solid state digital watches will fall in price below $10 before the end of the year, putting them in direct competition with the lowest-priced conventional watches.

The first instance of a U.S. industry—on a regional basis—seeking relief from import injury is now being considered. The Trade Act of 1974 opened the way for such regional appeals. The Western Concrete Reinforcing Steel Institute, noting that steel reinforcing bars from Japan, Taiwan and Korea are being imported into its West Coast markets at an accelerated rate (20 percent of market currently, against the customary 8 percent), is considering filing an import injury action with the International Trade Commission. The interesting aspect is that, on a national scale, the ratio of imported reinforcing bars to apparent consumption was 4.8 percent in the first half of 1976, compared with 9.1 percent in 1974 and 3.8 percent in 1975.

Apparel retailers are looking for a revival of consumer interest this fall. Prices for spring and summer apparel were up 10-15 percent this year and consumer resistance was encountered. Sales were sluggish despite widespread promotions and earlier-than-normal clearance events. Stimulus is expected from the traditionally heavily-promoted fall fashions and back-to-school items, but the price tags will again show 10-15 percent increases.

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COVER: A few of the helpful services which the Department of Commerce's nationwide field offices offer American business and industry are spelled out Scrabble-fashion. The story beginning on page 4 details how these services are being used and how they can assist business executives who may not already be aware of them.

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ECONOMIC HIGHLIGHTS

Patterns Of Productivity, Costs And Prices In The Business Cycle

This Economic Highlights by John W. Kendrick, Chief Economist of the Department of Commerce, is his second on productivity.

John W. Kendrick

There are some interesting differences between the pattern of changes in productivity and related factors in the current business cycle and the typical pattern in previous cycles. An examination of these differences, as well as the similarities, provides some clues to the probable changes in productivity, costs and prices over the next several quarters.

Productivity plays a key role in the business cycle. As discussed previously *(Economic Highlights, August 2)*, increases in productivity, defined here as output per hour, are in effect deducted from increases in average hourly compensation in computing changes in labor cost per unit of output. Thus, between 1966 and 1973, average hourly labor compensation rose at a 6.9 percent rate, output per hour at 2.1 percent, so that unit labor costs increased at an average annual rate of about 4.7 percent in the private domestic economy. Since unit labor cost is the major component of price, the two variables show similar changes over the long run. Over shorter, cyclical periods, however, they tend to diverge, indicating contraction or expansion of profits (and other nonlabor charges). This cost-price relationship is a key element in the cycle, since the profit residual is of basic importance in motivating and financing business investment—a major determinant of total final demand and thus of economic activity generally.

In the latter phase of expansion, productivity growth typically slows down as an increasing proportion of industries are operating at or beyond the most efficient rates of utilization of capacity. At the same time, average hourly earnings accelerate, reflecting tight labor markets and more overtime. At some point, unit labor costs accelerate more than prices, squeezing profits prior to the cycle peak, and causing investment plans and commitments to be cut back, a major factor in bringing on the contraction.

For much of the contraction, unit labor costs continue to increase more than prices, and profits continue to drop. But, prior to a cyclical trough, the rate of productivity changes bottoms out, as managers lay off unneeded workers, concentrate production in more efficient plants, and otherwise reduce costs. At the same time, increases in average hourly labor compensation decelerate, as overtime is reduced, and new labor agreements involve smaller wage increases, reflecting falling demand and rising unemployment. As a result, unit labor costs rise less than prices in the final phase of a contraction, helping to widen profit margins, and increase investment commitments and new orders. This sets the stage for recovery. For at least the first year, productivity rises at above average rates as capacity utilization rates rise toward optimal levels. It is usually some time later before unit labor costs begin putting upward pressure on prices again, which is where we began the cycle story.

Cycles since World War II have conformed quite well to the summary description given above, which was first developed by Wesley C. Mitchell. Looking at the 1973-75 contraction, the decline in productivity changes in the business sector bottomed out two quarters after the peak (in fourth quarter 1973) as in prior cycles, but then increased one quarter before the trough (panel A). But, average hourly compensation continued to rise up to the trough, in contrast to a decline in prior contractions (panel B). This was attributable to efforts by labor to catch up with the double-digit inflation of 1973-74, which was unique to the recent cycle. As a result, unit labor cost changes dropped only one quarter before the trough of early 1975, instead of several quarters earlier as in prior cycles (panel C).

Similarly, price inflation accelerated during the recent contraction instead of declining (panel D). As a consequence, the ratio of price to unit labor cost began to rise one quarter before the trough of 1975, instead of sooner as in earlier cycles (panel E). This was reflected in an increase in unit nonlabor costs (indicating unit profit changes) one quarter before the early 1975 trough, instead of the two-quarter lead of prior contractions (panel F).

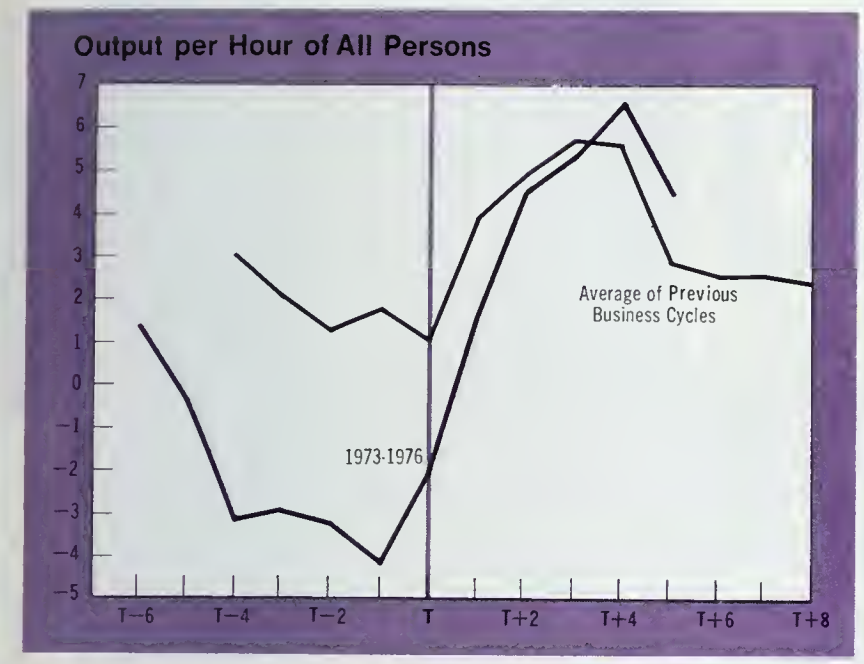
During the 1975-76 expansion, productivity changes rose smartly for four quarters after the trough, instead of for three quarters (panel A). And even the increase of 4.5 percent in the second quarter of 1976 was still far above the 1947-76 trend-rate of less than 3 percent. Increases in average hourly labor compensation, instead of rising after the trough, fell for four quarters from a much higher rate than in earlier troughs, before appearing to level out in the second quarter of 1976 (panel B). As a result, unit labor cost increases decelerated much more sharply for four quarters after the early 1975 trough than in earlier expansions (panel C), and by early 1976 were only one percentage point above earlier average rates of increase. In both cases, they accelerated somewhat in the fifth quarter. Note also that price inflation decelerated sharply during the first year of recent recovery, from 12-13 percent down to about 5 percent, whereas in earlier expansions, after one quarter inflation had accelerated to almost 4 percent by the fifth quarter (panel D).

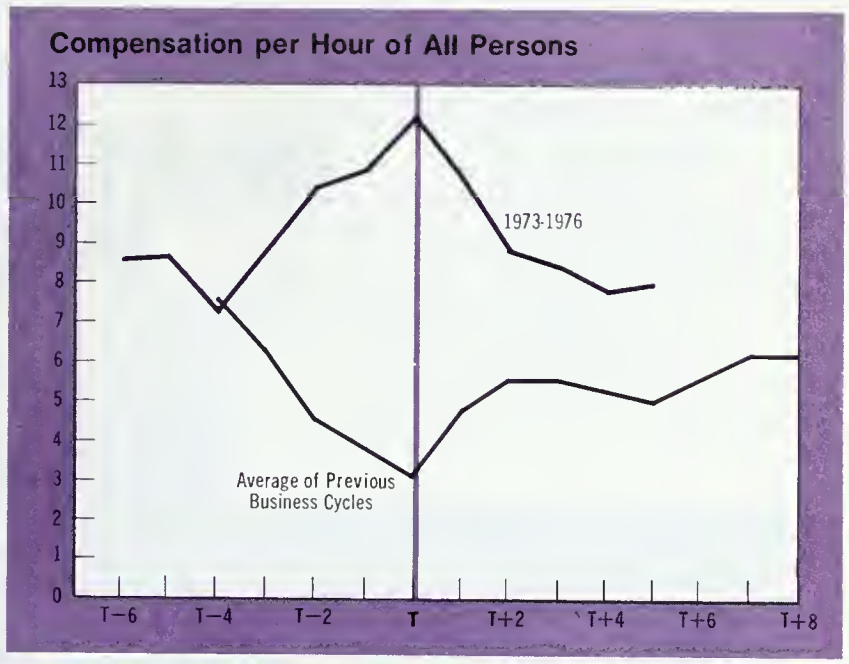
The ratio of price to unit labor cost spurted much faster for two quarters after the 1975 trough, than in earlier expansions, when the ratio went up for four quarters (panel E). But, by the fifth quarter, both ratios had decelerated to about a 1½ percent increase, with unit nonlabor costs rising at about an 8 percent rate (panel F).

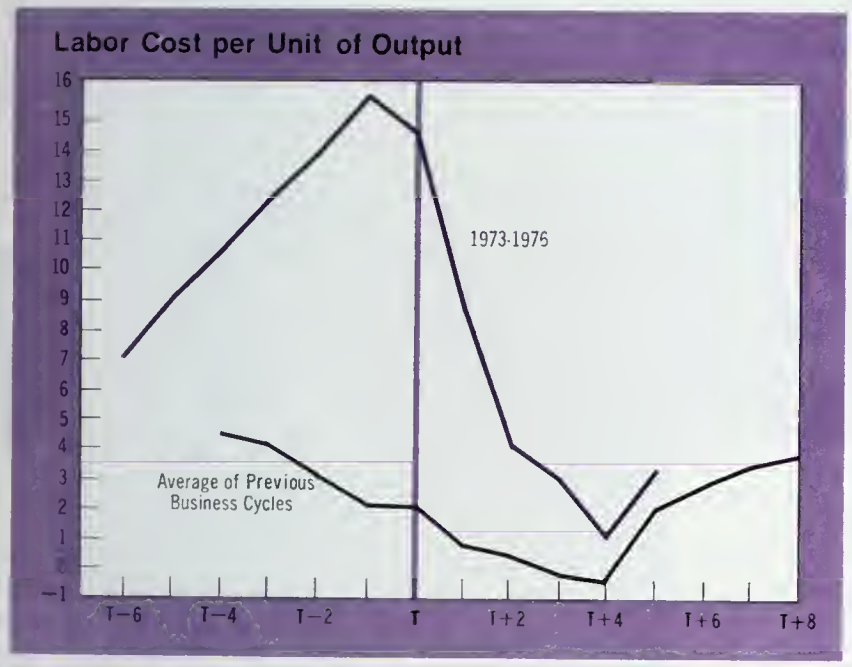
It is quite possible that productivity will continue to rise at above-average rates because there are still larger reserves of unutilized plant and labor than is usual after 1½ years of recovery. For the same reason, increases in average hourly earnings are unlikely to accelerate significantly. Under these conditions, rates of increase in unit labor costs should not rise much, and average price increases may continue at around their recent levels. Nevertheless, if past patterns prevail, there would still be a downward tendency in the ratio of price to unit labor cost, and in unit nonlabor costs (including profits), as shown in panels E and F. Even so, rising volume would still produce further increases in total profits, with favorable implications for continued growth of business capital outlays.

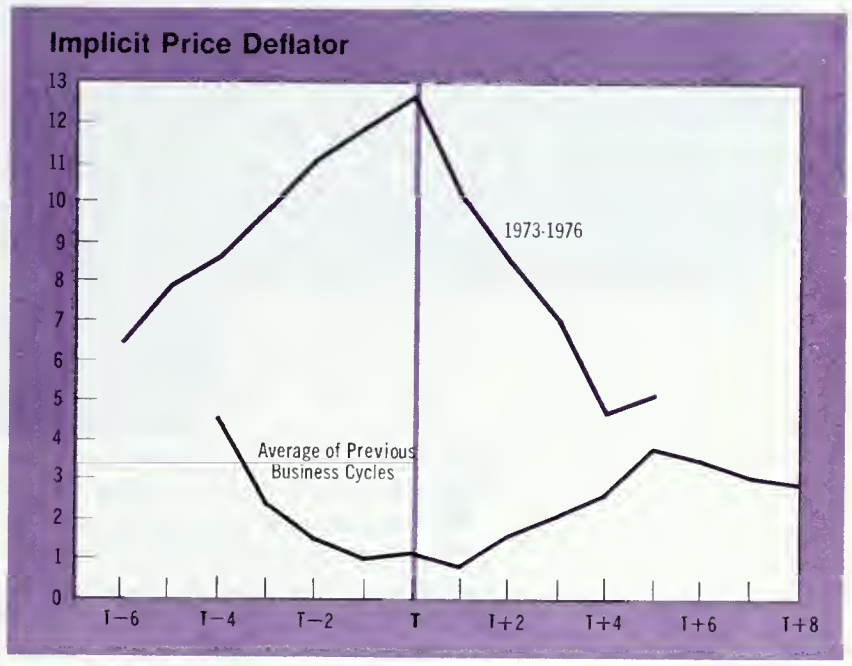
PRODUCTIVITY, COSTS, AND PRICES in the U.S. Private Business Economy during Contraction and Recovery.

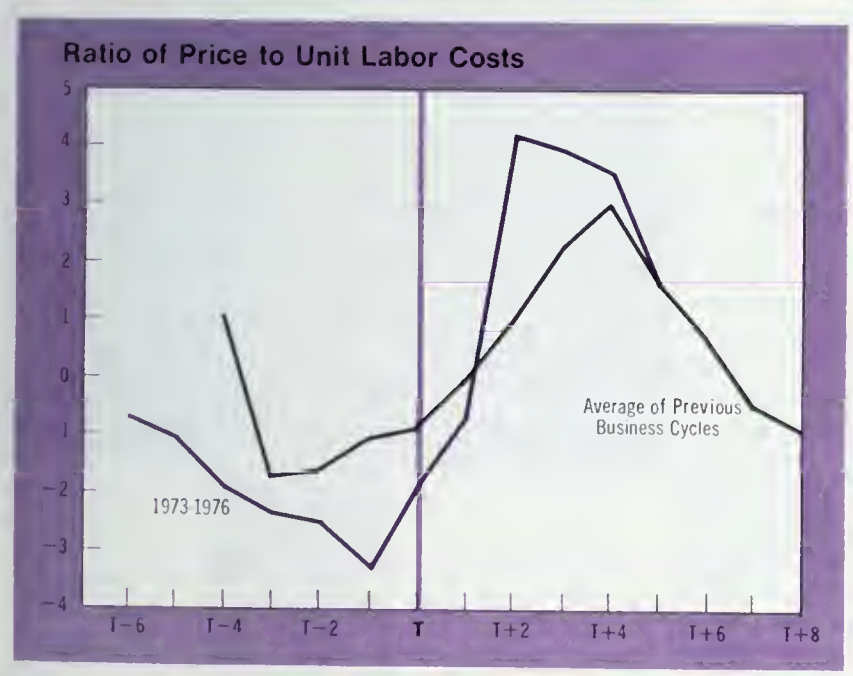
[Percent changes over same quarter of previous year.]

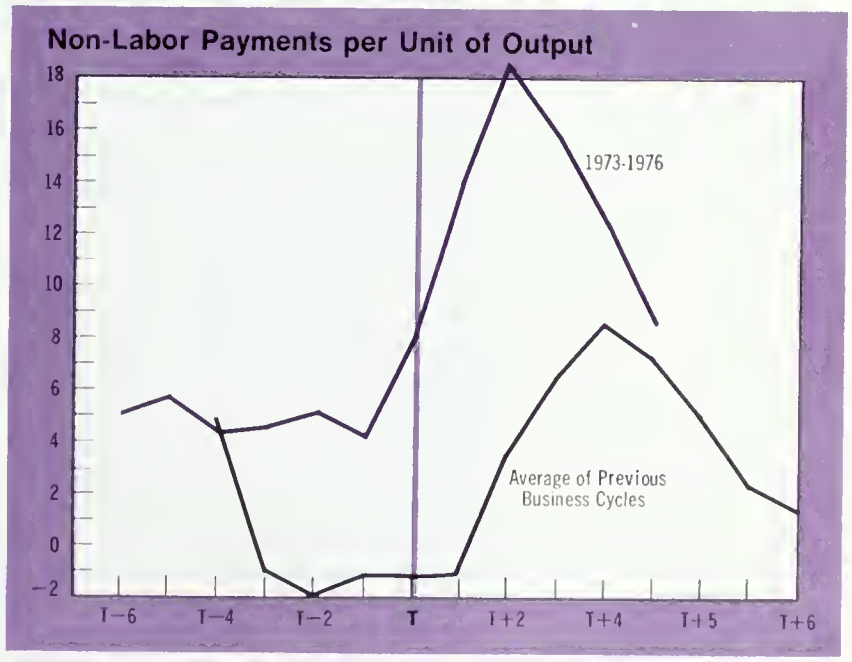










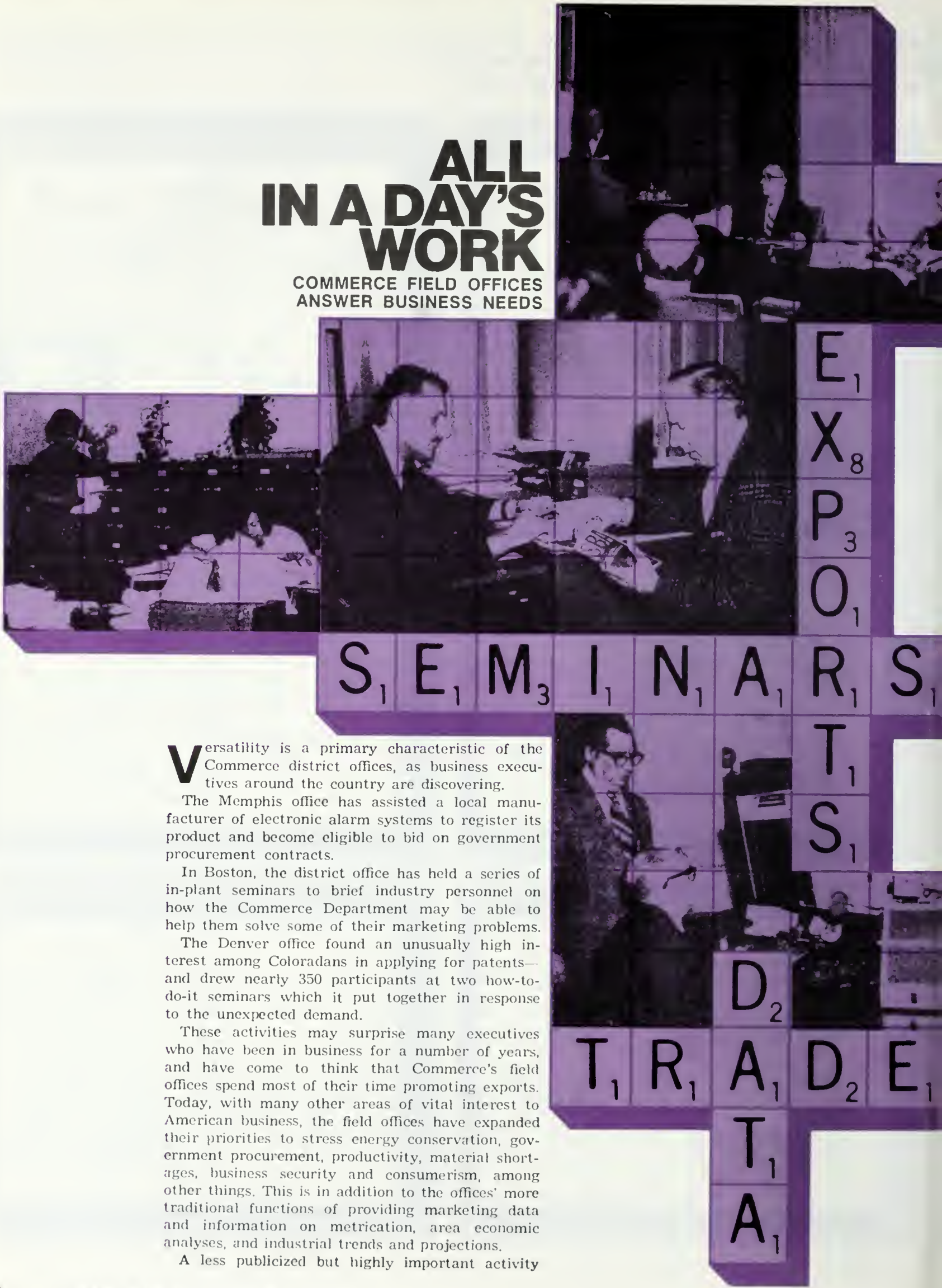


T = Trough Quarter

SOURCE: U.S. Bureau of Labor Statistics

ALL IN A DAY'S WORK

COMMERCE FIELD OFFICES ANSWER BUSINESS NEEDS



Versatility is a primary characteristic of the Commerce district offices, as business executives around the country are discovering.

The Memphis office has assisted a local manufacturer of electronic alarm systems to register its product and become eligible to bid on government procurement contracts.

In Boston, the district office has held a series of in-plant seminars to brief industry personnel on how the Commerce Department may be able to help them solve some of their marketing problems.

The Denver office found an unusually high interest among Coloradans in applying for patents—and drew nearly 350 participants at two how-to-do-it seminars which it put together in response to the unexpected demand.

These activities may surprise many executives who have been in business for a number of years, and have come to think that Commerce's field offices spend most of their time promoting exports. Today, with many other areas of vital interest to American business, the field offices have expanded their priorities to stress energy conservation, government procurement, productivity, material shortages, business security and consumerism, among other things. This is in addition to the offices' more traditional functions of providing marketing data and information on metrication, area economic analyses, and industrial trends and projections.

A less publicized but highly important activity

of the district offices is their responsibility for industrial mobilization in times of national emergencies, the defense materials/priorities system and the training programs of the National Defense Executive Reservists.

Commerce's 43 district offices, listed on the inside back cover, are supported by 20 satellite offices in major industrial and commercial centers throughout the United States and Puerto Rico.

For more than 60 years the Commerce offices have worked to improve the rate and quality of U.S. economic growth and to enhance the competitive position of American goods in world markets.

Field office trade specialists are well versed in both the domestic and international programs of the Department which, through private consultations, conferences, seminars and in-plant workshops, are provided to the business communities of their respective districts.

The district offices and their satellite offices are administered and guided by the Office of Field Operations in Washington, where coordination with other Department resources is carried out.

For instance, the Office of Ombudsman, in the Bureau of Domestic Commerce, works closely with the district offices to register complaints, file opinions, and provide input to Commerce policies as they are being formed.

Each district office maintains an extensive business reference library of government and private sector reports, publications, periodicals and other basic reference sources that enable the business community to undertake, on the spot, major research in a broad variety of business fields.

In addition, each office has direct access to a collective base of knowledge represented by some 150 industry analysts in the Bureau of Domestic Commerce. That staff provides "coverage" of 325 manufacturing and 222 wholesale/retail business and service trades—about 90 percent of those classified in the Standard Industrial Classification Manual (SIC).

In furthering Commerce's energy conservation program, district office personnel show film and slide presentations (viewed by more than 100,000 in the past year), hold seminars, and visit plants to suggest energy-saving improvements. They also supplement the efforts of the National Bureau of Standards to promote awareness and utilization by business and industry of its energy technology, and such other programs as household appliance labeling, conversion to metric, materials flammability and U.S. standards.

With guidance from the Memphis District Office, a number of firms in that area have made use of Commerce's energy conservation materials. Louisville's American Telephone & Telegraph Company has scheduled 14 showings of Commerce's energy film, and held seven energy conservation seminars. All Kentucky AT&T employees, and some of their family members, were exposed to the program.

Memphis District Office personnel have also worked closely with the Memphis Light, Gas and Water Division, which has been a major user of Commerce's EPIC (Energy Conservation Program Guide for Industry and Commerce) Handbook, a compilation of energy-saving programs instituted by some 50 firms around the country.

Following contact by the Birmingham District Office, the Alabama Power Company has shown the energy film to all its employees, and the Mississippi Power and Light Company responded in a similar manner to the Jackson Satellite Office.

The Boston District Office has concentrated on holding in-plant seminars. Built around the theme of "Would You Like To Borrow the Department of Commerce For a Couple of Hours?," the seminars inform industry of what services Commerce offers, and which one would be of most value to the individual firms. The trade specialists emphasize the wealth of Commerce literature available, such as the *U.S. Industrial Outlook*, Census Bureau publications, the *Commerce Business Daily* and various commodity and industrial quarterly reports. Since May, the district office has scheduled eight in-plant seminars, and hopes to put on 100 in the next year.

The district offices are the activists in a new cooperative program between Commerce and the General Services Administration (GSA), aimed at locating new suppliers for government procurement. According to Commerce/GSA predictions, the new sources of supply are expected to:

- increase competition and lead to lower prices and a consequent saving of tax dollars;
- expand the government's procurement base, which could be vitally important in a national emergency; and
- bring about a more even distribution of the federal procurement dollar.

In carrying out this program, GSA will supply Commerce with a list of items which are purchased on a repeat basis, on which few bids were received in the most recent procurement, and for which the latest contract exceeded $50,000. Commerce district offices will then try to locate new sources for GSA procurement by announcing the program at trade seminars and procurement conferences, and in their newsletters.

As a means of bringing this program to the attention of business, Commerce district offices conduct Business Development Conferences. These are sponsored by members of Congress, held in the member's district, and include representatives of other appropriate government agencies.

The one-day conferences provide local business executives the opportunity to meet, on a person-to-person basis, specialists from civilian and military government agencies as well as federal contractors. They provide advice on the federal procurement and contracting process, government aids and services to business, opportunities to sell to prime contractors, and export opportunities.

In the area of minority business, directors and some staff members provide marketing and statistical information on opportunities for the minority business community and contractors.

To complement and multiply the efforts of the

For more than 60 years . . . they have worked to improve the rate of U.S. economic growth and the competitive position of American goods . . .

district offices, Commerce has designated more than 850 Chambers of Commerce, world trade clubs and other types of business-oriented organizations as associate offices. Their assistance is voluntary and without cost to the Commerce Department. The program has been in operation since 1913.

. . . expansion into export markets provides a more stable marketing base, expanded job opportunities and increased profits.

The Pittsburgh District Office has begun a cooperative effort with more than 30 local chambers of commerce to reach the business community. The district office uses the chambers' membership lists to send out information on its services—hand-tailored to suit the particular size and location. Staff members also brief Chamber of Commerce board members on how to use Department of Commerce services.

Pittsburgh District Office Director Newton Heston, Jr., describes the information offered by the field offices as being culled from three sources: first, Commerce printed material, easily available to anyone; second, the information stored in Commerce Department files, both in headquarters and in the field; finally, the information filed in the heads of the Commerce staff, based on their years of experience.

According to Heston, "Everyone wants different information, for their different purposes. It's not possible to print or even gather the data to answer each individual need. So we talk with the business executive about what specific material might be helpful and how to adapt the available material to fit the particular situation."

Recently, the Pittsburgh office was approached by a Western Pennsylvania manufacturing company, an employer of 1,000-1,500 workers, that was considering an investment of several million dollars in capital equipment. They were conducting a market study to determine the future for their product, both domestically and world-wide. This involved checking the trends of current and potential customers' businesses. The district office provided counseling, informing them of what data was available from Commerce, and where they could obtain additional secondary information.

District offices have also established close relationships with their counterparts in the states, to provide better service to local business communities and eliminate duplicate programs.

The Denver District Office was receiving as many as 1,200 calls in a year seeking information on obtaining patents. In response to this obvious need (Colorado ranks 18th among the states in the number of patents issued), the office scheduled a series of seminars on "How To Obtain and Market a U.S. Patent." The seminars featured patent attorneys, a successful local inventor, and district office staff. Just under 200 people attended the first seminar, and 135 came to a follow-up meeting.

The office also met another community need by offering seminars on "How To Avoid Bankruptcy." By working with the Referee in Bankruptcy of the U.S. District Court, the district office tried to reduce the unusually high number of business firms contemplating bankruptcy.

The Denver District Office has joined with the Small Business Administration to offer biweekly seminars at which people considering business ventures are given on-the-spot assistance.

Field offices participate in the continuing series of census user conferences conducted by the Bureau of the Census. And they distribute instructional materials dealing with metric conversion for the National Bureau of Standards.

The Memphis District Office has furnished Census Bureau data to such companies as Harland Bartholomew & Associates, an engineering firm that required boundary and classification information on Standard Metropolitan Statistical Areas. Ernst & Ernst, certified public accountants, used Census data in preparing a feasibility study for the expansion of a Memphis children's hospital and the Memphis Housing Authority received help in setting up an energy conservation program for its housing units.

The Louisville Gas & Electric Company has served as a multiplier for Commerce services and programs. The company displayed Commerce's metric exhibit in its downtown office, and also at a major home builders trade show attended by thousands at the Louisville Exhibition Center.

Commerce has traditionally conducted an export expansion program to benefit both the participating business firms and the national economy. For the companies, successful expansion into export markets provides a more stable marketing base, expanded job opportunities and increased profits. On the national scene, expanded exports contribute positively to the U.S. balance of trade.

Among the export programs the field offices participate in, some new and some well established are:

- providing marketing data and counseling services;
- encouraging firms to enter exporting;
- identifying trade opportunities and new markets for established exporters;
- assisting qualified foreign buyers in the purchase of domestic goods in the United States.
- stimulating East-West trade; and
- using local multiplier agencies as leverage vehicles for export trade expansion.

Specific exporting activities include the Target Industry Program, the Agent/Distributor Service, World Traders Data Reports, the American International Traders Register, TOP (Trade Opportunity Program), overseas trade shows, fairs, trade center promotions, and trade missions.

In addition, Commerce offices provide:

—primary contact locally for all Commerce agencies, including Bureau of the Census, Office of Industrial Mobilization, Patent and Trademark Office, National Bureau of Standards, National Technical Information Service, and the United States Travel Service;

—publications of the Government Printing Office;

—Census Bureau data and publications; and

—other Commerce publications, including retail and wholesale *Data Sources for Market Analysis*, *Construction Review*, *Measuring Markets* and others.

Field office personnel also inform local businessmen and women about the services of Commerce's Ombudsman, alert the Department to critical shortages of material, and assist in obtaining platforms for Departmental spokesmen and women.

Domestically or internationally, Commerce field offices are responsive to the increasing demands from industry at the local level, and provide feedback to the Department of Commerce on concerns of the business community. ☆

ENERGY SAVING
AT THE GRASS ROOTS

AMERICAN INGENUITY SCORES AGAIN

With the disappearance of summer and the approach of cold weather, Hobart, Indiana, a city of about 25,000 population 40 miles from Chicago, is undertaking an energy conservation program that will reach all its citizens. Such concerted efforts are happening all over the country as local governments attempt to solve, often with Federal Government and local industry's help, their growing energy problems.

Hobart launched a campaign lasting five weeks to alert its citizens to the need for conserving energy. The campaign featured a pledge sheet which householders were asked to complete. The campaign managers reported that nearly 1,000 pledge sheets were submitted.

Those filling out the pledge sheets promised voluntarily to conserve energy at their residences, businesses, and in the use of their cars in the following ways: by insulating attics and walls, adding storm windows and doors, caulking all air cracks, and using insulated siding; controlling thermostat temperature by setting it at 65 degrees at night, 68 to 70 degrees in daytime, lowering it when away from home for extended periods, cleaning furnace filters and changing them regularly; conducting a home energy audit to determine consumption and areas of waste; and practicing good driving habits and car care.

'Everybody wins'

Weekly drawings at random were taken from those turning in pledge sheets, and prizes consisting of $25 savings bonds and merchandise awarded to the winners. Posters were printed and displayed at local businesses, and red, white, and blue city

Many communities have relaxed conservation drives . . . in others a strong basic effort is still going on.

decals were given free to all pledge signers. Thousands of bumper stickers with energy messages were placed on cars. The slogan of the campaign was "Everybody can be a winner."

The Hobart campaign was organized and carried out by an energy conservation board headed by Arthur W. Padish, a Hobart citizen who presented the conservation plan to Mayor Calvin E. Green, Jr., soon after he assumed office last January 1. Green said he felt the campaign had been very successful. He added that industrial establishments in the area had carried out energy conservation programs of their own.

With citizens made energy conscious by the publicity campaign, the next step was to put a specific program into effect. The local board turned the job over to the Hobart Jaycees, who volunteered to accept the challenge. The Jaycees, consisting of 160 men, are undertaking to make the conservation program a reality. Robert Hunt, president of the Jaycees, says that, although stumbling blocks have been encountered, he still hopes to win the cooperation of all citizens.

The Hobart experience is one of many efforts under way in communities throughout the nation to face up to the inevitable so far as energy supply is concerned. A growing number of citizens are aware that the energy prospect in the United States is for increasing shortages, rising prices, and growing reliance on foreign sources . . . . except to the extent that this can be offset by conservation measures in home, community, and industry, and development of new and greater energy sources at home.

Many communities have relaxed in some measure their conservation drives since the first big energy pinch gripped the country in 1973. But in many others a strong basic effort to save energy is still going on. Hobart is an example of a community still aware that the energy crunch is permanent.

The following examples are only a few of the other communities, large and small, that are active in conducting programs to save energy.

Chicago: The Greater Chicago Committee to Use Energy Wisely, which has a wide representation from governmental, industrial, educational, trade and professional groups, maintains a program to encourage the wise use of energy resources, and has a "Use Energy Wisely Week" in October in which awards are presented for the wise use of energy resources.

Special emphasis is placed on motivating citizens to do something for themselves, with specific suggestions about the benefits of conservation and what to do and how to get assistance.

H. Wallace Poston, Commissioner of the Department of Environmental Control of the City of Chicago, who first proposed the energy conservation program and serves as chairman of the committee, feels that the group is getting the conservation message across to at least some of the citizens of the area, although he points out that any movement will lose steam if there is no national emergency to urge it on He feels that the pressure to save energy will be greater in the future.

Examples of energy savings made in Chicago include: University of Chicago, Joseph Regenstein Library, $76,266 in energy program benefits from reducing electric usage 2,230,720 KWH annually and natural gas, 97,349 Therms annually; IBM Building, 46 percent reduction in energy usage in an all-electric building; and People's Gas Light and Coke Co. Office Building, $93,400 energy program benefits from reducing electric usage 2,533,600 KWH annually and natural gas 47,855 Therms annually.

Nassau County, N.Y.: Worried about possible energy shortages, Nassau County started an energy conservation program in July 1973, several months before the oil embargo brought the energy crisis home to all Americans. The county made a profile of its buildings, conducted a consumption monitoring program, and set up a control system.

A conservation coordinator was named. The conservation effort was extended to every work area. People in each area were directed to report to the conservation coordinator. An inspection system was established, checks were made on meters.

Richard T. Rocchio, Director of the Bureau of Energy Resources of the county Department of General Services, says that in 1974 energy consumption in county buildings was reduced about 24 percent below 1973, and thus far in 1976 consumption is about 8.5 percent less than in 1975.

In the last year and a half, the County's Bureau of Energy Resources has begun extending its conservation efforts to the public and to local industry.

About 50,000 copies of an "Energy Tips" booklet have been distributed to the public. Ideas for saving energy have been published in local newspapers. An energy fair is being held in which 35 to 40 exhibitors will provide instruction on how to save energy. A miniature house is being erected in which energy-saving tips will be demonstrated. A panel of consulting engineers will be available to tell home owners how to save energy.

The Bureau also is operating an Econo-Van which tests automobiles free of charge to see if they are using gasoline inefficiently, and how they can cut down on gas use.

"We first appealed to people to save energy and save the country," Rocchio says. "That didn't work so well. Then we told them that if they saved energy they would save money. That worked better. People usually will listen if you can show them how they can save money."

Chautauqua County, N.Y.: Chautauqua County has an independent energy conservation program aside from participating in the joint Federal-State Home Energy Savers' program sponsored by the Federal Energy Administration (FEA).

The program features: a plan to reduce lighting 40 to 50 percent in schools, the community college, and industrial facilities, particularly where lighting had been excessive; development of housing codes with emphasis on insulation and lighting that would be adequate but not excessive; a booklet containing information on saving energy; establishment of information centers in Dunkirk and Jamestown; a questionnaire dealing with energy conservation that students can take home to their parents.

Ten states are participating in the FEA program. Major features of this program include a "hot line" on which citizens can call for information about saving energy, a home retrofit "How To"

course, and a Home Energy Savers' Workbook.

Fairfax County, Va.: Early in 1973, Fairfax County, located near the nation's capital, initiated an energy conservation program that encompassed a wide variety of operations including: conversion of heating plants to No. 5 fuel from No. 2 fuel; reducing the size of vehicles in use; continued monitoring of vehicle and heating plant operational efficiency; reduction in energy requirements by way of staggered work hours, carpooling, four-day weeks, and other measures; vehicle speed at no more than 50 miles per hour except for emergency calls, and other means for saving fuel in vehicles; stopping the use of school buses to carry spectators to athletic events; and many other steps designed to conserve energy.

Gary W. Blanchard, of the county's Energy Management and Monitoring Staff, says the energy saving program is still under way except that some of the emergency actions such as cancellation of spectator busing have been relaxed. The county estimates that it achieved in 1974 a 35 percent reduction in average gallons of No. 2 heating fuel consumed per degree day; a 29 percent reduction in average gallons of No. 4 heating fuel, and a 14 percent cut in average gallons of No. 5 heating fuel.

Jacksonville, Fla.: For the last 18 months, Jacksonville has been carrying on an energy conservation program in which teams of specialists undertake to help local people with energy saving efforts. The teams visit homes and recently have extended the visits to commercial and industrial establishments.

Harry Kimball, project manager of the Mayor's Energy Office, says thus far about 300 homes have been visited. A survey, he adds, indicates that the home visits have resulted in an average energy saving for each home of about 17 percent.

"We do not go from door to door," Kimball explains. "But we send teams to places that request the service, which is free."

In addition, the teams visit homes where the householder has complained of high energy bills. In the home visits, an energy analyst inspects the premises to determine where insulation would be helpful, while a home economist explains to the housewife or householder how energy could be saved by keeping the indoor temperature at 68 to 70 degrees in winter and allowing it to go to 78 or 80 degrees in summer; setting the hot water heater at around 130 degrees; using small appliances and utensils for cooking; using a bottle warmer for the baby's bottle, etc.

The energy office receives free television and radio time in Jacksonville, Kimball says, to explain energy conservation techniques. These have resulted in numerous phone calls to the office by people interested in saving energy. Word of the Jacksonville program has gone far and wide, with the result, Kimball says, that more than 50 communities scattered about the country have asked about the program, and have been given packets of information explaining it.

Tulsa, Okla.: Tulsa, which has a population of 350,000, is saving energy in the operation of its city government.

Mayor Robert J. LaFortune says that three years ago Tulsa adopted the following program to conserve energy so far as its own departments are concerned: overnight privileges were taken from city cars except those subject to being called out for emergency service; allocations of gasoline and diesel fuel were adopted for each city operating department; emphasis was placed on the use of diesel rather than gasoline-using equipment in new purchases of fire trucks, etc.; literature was sent out to several hundred companies encouraging car pooling.

LaFortune adds that in the last four years Tulsa has doubled its transit service and has assumed greater responsibility for subsidizing mass transit. In 1976 the city is devoting $900,000 of general funds to its mass transit system.

He says that for three years Tulsa has lived with the same state-approved allocation of gasoline and diesel fuel: 160,000 gallons per month of gasoline and about 10,000 gallons a month of diesel fuel.

"The allocation," he observes, "is beginning to strain. In the last year, we have added 100 new police officers, and police cars use a lot of gas."

Phoenix, Ariz.: The city of Phoenix in recent years has conducted an extensive energy conservation program in which an effort has been made to plug all the leaks in energy use by city services.

Ronald W. Jensen, Maintenance Services Director, explains that since energy conservation efforts were begun in 1973, substantial savings have been made in the use of natural gas, electricity, and automotive fuel. The savings, he adds, have been due in part to the active involvement of city employees as well as accomplishments on specific energy reduction projects.

New building designs in Phoenix are expected to be superior to any constructed in the past so far as energy efficiency is concerned. The city plans to continue to purchase smaller autos and pick-up trucks as the older and larger ones wear out and are replaced. A consulting engineering firm has been hired to assist in making recommendations on the feasibility of converting refuse into energy.

San Diego, Calif.: The city of San Diego has developed an energy conservation program focused on internal city operations.

Currently, San Diego's conservation operations include: a contract with a consultant to review the possible use of solar energy in new construction and in retrofitting existing buildings; a solar-heated municipal swimming pool; lighting and heating standards have been established for city buildings; a driver education program is being conducted for some sanitation workers so that they may act as a control group; automated fuel dispensing equipment has been installed; street lighting requirements are being reconsidered; each department has implemented conservation measures.

Seattle, Wash.: The city of Seattle discovered that it could save up to 42 percent of the energy costs in downtown office buildings during the winter simply by turning down thermostats and hot water temperatures, turning off unnecessary lights and turning off the heating system on weekends.

These are only a few of the bright spots in the nation's energy conservation effort. But for those countless homes, factories and communities where thermostats have not yet been lowered, the question might reasonably be asked, why? ☆

"People usually will listen if you can show them how they can save money."

Energy Digest

QUADRILLIONS? . . . The U.S. Geological Survey is probing Appalachia's black shale deposits for natural gas deposits that may range as high as several quadrillion cubic feet. Devonian shales underlie an area of roughly 150,000 square miles between the Appalachian Mountains, the Mississippi River, New York and Tennessee. The shales remain untapped because they cannot be developed with current technology. Laboratory data indicate that by a technique called pyrolysis the Devonian shale formation would yield about 1,000 to 2,000 cubic feet of gas per ton of shale. The total volume of gas in the shale formations is unknown, but estimates range from 150 trillion to quadrillions of cubic feet. According to some data, the Devonian black shale in the Appalachian basin may have a total recoverable natural gas resource of about 220 trillion cubic feet. This volume is about six times larger than the 36 trillion cubic feet of gas produced from all known reservoir rocks in Appalachia since drilling of the first gas well in 1921.

SOLAR DRYERS . . . The Energy Research and Development Administration Solar Industrial Process Heat Program is trying to determine which industrial processes are best suited to the use of solar technology as a replacement for fossil fuels. Accordingly, the agency has signed contracts totaling over $1 million with six organizations to design solar systems for drying lumber, onions, textiles, soybeans, alfalfa, raisins and prunes. The six were selected from 24 that submitted proposals. The designs are to be completed by next spring, when the two or three most promising will be selected for construction and operation.

READIN', WRITIN' AND ENERGY . . . The University of California at Berkeley is offering three-day energy courses for professionals in urban, regional, and environmental planning as part of its Summer Institute in Environmental Planning and Design. Courses are being offered in: Energy Conservation in Architecture & Planning and Energy Policy & Urban Growth. Contact Glen Harris, University Extension, University of California, 2223 Fulton St., Berkeley, Cal. 94720. (415-642-4811).

ELECTRIC CAR BREAKTHROUGH? . . . The electric car may not be as remote a possibility as it has generally been considered if ERDA-sponsored research succeeds in developing a powerful new battery which space technology has made theoretically possible. The new battery could store about 20 times more energy for its size and weight than present-day car batteries. A method of harnessing water and lithium—normally incompatible—to make such a battery was discovered by engineers at Lockheed Missiles and Space Company. An electric auto powered with such a battery could perform comparably to today's compact, gasoline-fueled cars, according to preliminary calculations. Operating costs now appear to be about two or three times greater, but researchers feel they could be reduced with further development.

BRIDGE PRESERVER . . . The Federal Highway Administration's Division of Special Projects has made what is believed to be the first installation of a solar electric system for cathodic protection of a bridge deck, at an expected saving of more than $10,000 compared with the cost of running a power line to the site. Solarex Corp. of Rockville, Maryland, manufactured the system, which produces 90 watts (peak) power to deliver the electricity necessary to protect the reinforcing rods in the bridge deck from corroding. Excess energy produced by the solar array is stored in a battery to provide electricity to the structure during darkness. The solar cells are silicon photovoltaic devices which convert sunlight directly into electricity. Solarex reports that the systems are extremely reliable and are virtually maintenance-free. Furthermore, they are absolutely quiet and pollution-free, as they have no moving parts and need no fuel.

GETTING DOWN TO SPECIFICS . . . ERDA has published the second volume of its national plan for energy research, describing in detail all of the agency's energy projects and those of all other federal units. Free copies of Vol. 2, A National Plan for Energy Research, Development and Demonstration: Creating Choices for the Future, are available from the Technical Information Center, Oak Ridge Operations Office, ERDA, Box 62, Oak Ridge, Tenn. 37830. Vol. 1 dealt with conservation technologies and outlined R&D priorities.

FIFTEEN PERCENT CUTBACK . . . Mobil Oil Corporation reports that it has reduced energy consumption in its U.S. refineries by 15 percent since 1972. A company spokesman said Mobil's conservation efforts last year saved 2.5 million barrels of crude oil that would have had to be imported into the country. This was 8.7 percent below the previous year's consumption.

Despite Snag, Synthetic Fuels Have High Priority

TASK FORCE REPORT CALLS FOR PRIVATE DEVELOPMENT, WITH FEDERAL INCENTIVES TO INVESTMENT

Despite a checkered career involving several unexpected setbacks, the commercial development of synthetic fuels as an alternative to rapidly diminishing fossil fuels still has high priority among energy planners.

Authorization to guarantee loans for projects seeking to develop synthetic fuels was deleted from the Energy Research and Development Agency's budget last December, but the agency expects Congress to reconsider synthetic fuels legislation this year and is anxious to move ahead with its development.

The need becomes more obvious and pressing every day. Domestic production of oil and natural gas has been declining since the early 1970s, and unless present trends are reversed U.S. dependence on foreign sources will be even greater.

In his 1975 State-of-the-Union Message, President Ford called for accelerated development of the nation's energy technology and resources, and proposed a set of comprehensive energy supply and conservation measures to reduce import requirements for foreign oil to about four million barrels per day by 1985.

As an important element of this 1985 program, the President proposed a National Synthetic Fuels Commercialization Program producing the equivalent of one million barrels per day of synthetic fuels by 1985. Such a program, in which the Federal Government would provide suitable financial or other incentives, would stimulate investment in a number of commercial plants to convert coal, oil shale and solid waste into clean oil and gas.

An Interagency Task Force was formed to develop means of reaching the President's goal. Its four-volume report, issued last January, stated that "Although the development of Alaskan and Outer Continental Shelf oil and gas, improved energy conservation, expansion of nuclear power facilities, and greater direct burning of coal can buy time, our dependence on foreign sources of oil and gas will continue to grow after 1990 if synthetic fuels are not produced in substantial quantities."

The Task Force found a number of serious impediments to exclusively private commercialization of synthetic fuels. The uncertainty of the future price of world oil is perhaps the most important factor discouraging private investment. If world oil prices were to fall substantially, large plant investments could not be paid off from revenues of low price, but high cost, synthetic fuels. In addition to the financial risk, there are numerous environmental uncertainties, regulations that must be met, and uncertainties concerning the adequacy of available labor and materials. Federal Government involvement is needed to overcome these uncertainties.

The Task Force examined a variety of possible Federal incentives, including tax changes (investment tax credits, construction expensing and accelerated depreciation) and government-owned management structures. Its final recommendations included:

Non-recourse guaranteed loans for part of project costs under which:

- Government guarantees payment of principal and interest for loan funded in the private sector;
- Covers only capital costs before startup;
- Government would not recover losses—in the event of failure—from the corporation, although it would recover assets of the project;
- Limited to a maximum of 75 percent of the cost. Industry will be required to invest substantial amounts of their capital and share the risks;

Price supports:

- Government pays the synthetic fuels producer the difference between an agreed upon support level and market prices;

Construction grant:

- Covers percentage of initial construction capital requirements.

The first phase of the commercial demonstration program proposed in the Task Force report would include a mix of plants and technology designed to provide the data needed to clarify the many uncertainties surrounding the creation of a whole new industry.

This points up another reason for getting the earliest possible start in this area: while large conventional power plants and refineries can ordinarily be built in three-to-seven years, the lead time associated with building a totally new industry is a much longer 10-to-15 years.

The initial program proposed by the Task Force, covering the period through 1978, would include:

Two shale oil plants, each producing 50,000 barrels per day;

Three high-BTU gas plants, each producing the equivalent of 40,000 barrels daily;

Four low-BTU boiler fuel plants, each producing the equivalent of 25,000 barrels per day, and

Five waste conversion plants, each yielding the equivalent of 6,000 barrels per day.

Goods Lost, Strayed Or Stolen In Shipment? Here's Help

Anyone ever troubled by the problem of goods lost, damaged or delayed in shipment can find help with *How To Recover For Loss or Damage To Goods In Transit.*

The book provides information in a single volume on shipped and carrier liability in various modes of transportation including admiralty, trucking, railroads and air carriers. It contains forms and statutes, and offers "how-to-" guidance on the rights, obligations and remedies for loss, damage and delay of goods shipped anywhere in the world.

The publication is available in looseleaf format in hardbound volume, updated by annual replacement pages, for $38.50 from Kenneth D. Weaver, Dept. DM, Matthew Bender, 235 East 45th St., New York 10017.

OCEANS AND ATMOSPHERE SOFTEN CLIMATIC CHANGES BY STORING, FREEING HEAT

THIS IS A RESERVOIR?—*Scientists with Commerce's National Oceanic and Atmospheric Administration say that the world's oceans are reservoirs of heat which, together with the atmosphere, cool the land in summer and warm it in winter.*

Storing heat in summer and releasing it in winter, the oceans and atmosphere act as heat reservoirs to cushion seasonal differences.

This is the conclusion of Drs. Abraham H. Oort of Commerce's National Oceanic and Atmospheric Administration (NOAA) and Thomas H. Vonder Harr of Colorado State University, who base their findings on thousands of temperature measurements in the atmosphere and oceans. Other researchers collected measurements from satellites, ground stations, and oceanographic vessels.

Oort, a researcher at NOAA's Geophysical Fluid Dynamics Laboratory at Princeton, and Vonder Harr used the temperature measurements to make quantitative estimates of how much heat is gained, lost, and stored by the oceans and atmosphere each month of the year in the northern hemisphere in 10-degree latitude belts.

The data used included satellite measurements of reflected sunlight and infrared radiation from earth for 1964 to 1971, five years of daily atmospheric temperature measurements taken by balloon at some 600 stations throughout the northern hemisphere and all of the ocean temperature observations on record at NOAA's National Oceanographic Data Center.

From this information the two scientists formulated a representation of the earth's heat balance that includes how much heat enters the top of the atmosphere, how much is stored in the atmosphere and the oceans, how much is transported by ocean and atmospheric circulation, and how much is interchanged between the atmosphere and the various parts of the earth's surface.

Worldwide impact

The scientists found that winds and ocean currents transport huge amounts of heat from warm to cold regions, thereby smoothing out the climate. Without this moderating influence, they conclude, the climate everywhere on earth would be more severe than it is, colder in winter and hotter in summer.

Both the oceans and atmosphere, the scientists say, seem to transport heat from whichever hemisphere is in summer to the one in winter. Ocean transport of heat is rated as of major importance south of 40 degrees latitude and strongest between 10 and 20 degrees. In these latitudes, in spring and fall, the oceans transfer about 5,000 trillion watts of heat northward. In winter, the heat transport is weaker and occurs farther north. One major feature that the researchers noted is a strong convergence of heat between 45 and 60 degrees north latitude in winter.

Oort and Vonder Haar speculate that this convergence may take place mainly in the western parts of the oceans, where dry, cold air from the land blows over the warm oceans, pulling from them enormous amounts of heat.

The scientists found a surprisingly large variation in heat storage and movement with seasons. The atmosphere, they discovered, collects heat most intensely in May and is warmest toward the end of July. In September and October, its rate of heat loss is greatest. In winter, heat energy is transferred from the earth's surface to the atmosphere at a rate of up to 130 watts per square meter. In summer, the flow reverses, with energy transferred from the atmosphere to the surface.

The heat budget analysis showed that from September through February the northern hemisphere loses heat. The rest of the year it is warming. The analysis also revealed that heat storage in land, snow, and ice is relatively small compared to that in the atmosphere and oceans.

The atmosphere plays the lead role in northern regions, Oort and Vonder Harr found. The main balance there is between the outflow of heat radiated into space from the top of the atmosphere and that carried in from other regions of the globe by winds. In the tropics, some of the heavy influx of heat from the sun is dispersed by ocean currents.

The situation, the researchers report, is most complicated in the middle latitudes. During the cooling half of the year, heat escapes from the top of the atmosphere, both atmosphere and ocean cool off, and ocean motions bring in heat. The other half of the year, when the zone is warming up, about half of the incoming radiation energy from the sun apparently is used either to heat the atmosphere locally or to export heat to higher latitudes, while the remaining half is stored in the oceans.

"The oceans undoubtedly form the most important medium to store heat, at least on a seasonal time scale," Oort and Vonder Harr report. But how far the seasonal changes penetrate the ocean surface is uncertain.

At some depth, the scientists believe, the waters of the sea must become impervious to such effects. Throughout most of the globe, the seasonal changes are believed to affect only the top 100 meters (328 feet) of the water, but in some isolated areas, such as the Norwegian Sea, dense cold water in winter may sink to much greater depths, and the annual cycle is noticeable to 1,000 meters (3,280 feet).

The researchers decided to concentrate on the top 275 meters (902 feet) of the ocean. The maximum rate of heat storage in the oceans, they report, lags behind the atmosphere a month and a half, reaching a peak in the middle of June and a minimum in the beginning of January. Most of this storage occurs east of North America over the Gulf Stream region and east of Asia over the Kuroshio.

From their study, Oort and Vonder Harr conclude that "it seems obvious that the oceans play a crucial role in determining the climate of the earth." But they say there are many uncertainties. For example, though the storage of energy in snow and ice is small compared to that of the oceans and atmosphere, "this does not mean that they do not play an important role in climate." Snow and ice practically dominate the radiation balance at high latitudes and on a long-time scale, the scientists believe, they may become even more important than oceans.

The next step, Oort says, is to concentrate on some of the local areas, such as the western parts of the oceans that are chilled by continental winds. "The data used in the present study," he comments, "provide only a few first glimpses of the earth's energy budget."

OCEAN FISHERY MANAGERS GET 200-MILE BRIEFING

The nation's "new look" in ocean fisheries is being explained to the people who are going to have a prime hand in administering it.

Representatives of federal agencies and members of Congress will brief more than 250 participants on their management roles in the 200-mile fishery conservation zone at a Sept. 13-17 national conference for Regional Fishery Management Councils at the Sheraton National Motor Hotel in Arlington, Va.

The meeting is the first for 139 voting and non-voting members appointed to eight regional councils established by the recently-enacted Fishery Conservation and Management Act as the basic management tool for America's fisheries.

The council members will have a wide variety of responsibility for managing the fisheries within their regions, including:

—developing fishery management plans and amendments to them;

—reviewing and revising assessments of optimum yield and allowable foreign fishing, and

—conducting public hearings on development of fishery management plans.

The conference is bringing together leading fishery authorities from around the country to discuss such topics as management council responsibilities, authority and duties; scientific and technical requirements for managing fisheries; foreign fishing under extended jurisdiction, and fishery management plans.

New Look Considered For Coastal Zones

Some of the most beautiful land in the United States is located along its shorelines and some of the ugliest. A conference on visual quality and the coastal zone was held at Syracuse, N.Y., last year to deal with the problems involved in planning the uses of coastal resources.

Although the discussions focused on New York State's coastlines, the material covered is common to all coastal areas: What is visual quality? How can it be evaluated? How can it be protected and enhanced?

For a copy of *Visual Quality and the Coastal Zone*, make check for $4.00 payable to SUNY Research Foundation and send to School of Continuing Education, SUNY College of Environmental Science and Forestry, Syracuse, N.Y. 13210.

On the same subject, four working papers have been prepared by staff and students of the college to clarify the background of these issues, with hopes of eliciting responses.

Titles of the papers are: *Visual Quality in Land Use Control; Evaluating Visual Quality of the Coastline—Some Significant Issues; Landscape Evaluation—A Review of Current Techniques and Methodologies; Coastal Landforms and Scenic Analysis—A Review of the Literature, With a Preliminary Examination of New York's Shoreline.*

They are available for 50 cents each from New York Sea Grant Institute, State University of New York, 99 Washington Ave., Albany, N.Y. 12246.

SATELLITES LEAD FISHERMEN TO PREY

Soon the world's fish will have nowhere to hide!

A team of fishermen, engineers, physicists, oceanographers, biologists, and computer specialists have "found" fish with a satellite in a unique experiment off the Louisiana coast. The project represents the culmination of a larger effort—the LANDSMAT Menhaden and Thread Herring Investigation begun last year by Commerce's National Oceanic and Atmospheric Administration.

Early reports from the fishing industry indicate that the satellite did its job well.

Menhaden vessels, fishing under the direction of spotter aircraft, confirmed the presence of menhaden in most, though not all, of the high probability concentration areas predicted by analysis of LANDSAT data, while special navigation systems plotted the locations of the fish precisely and scientific observers aboard several vessels collected water samples.

Thus, they validated a technique for locating fish concentrations from space which may lead to a greatly improved understanding of coastal fishery ecology and to better methods for resource assessment and management.

Investigating the feasibility of using satellite data for assessing fish resources has been a cooperative industry-Federal Government project. Personnel from NASA's Earth Resources Laboratory and NOAA's National Marine Fisheries Service have been working with boats and planes from member companies of the National Fish Meal and Oil Association.

Their work has shown that there are relationships between the distribution of menhaden and water turbidity—which the LANDSAT sensor measures as water color. From the water colorations sensed by LANDSAT, scientists can infer the probable presence or absence of menhaden. The satellite cannot sense, or "see" fish directly.

Despite this success, NOAA says much more work will be required before an operational satellite system can begin aiding the fishing industry. At best it would be three to five years before such a system could go into effect.

Report Relates Technology To Everyday Problems

Relating technology to everyday living is a continuing responsibility of Commerce's Office of Technology and Forecast. With this goal in mind, its recently published Sixth Report reviews 15 technologies which are the object of unusually heavy patenting by foreign resident inventors and 22 high-activity technologies.

Included in the latter group are seven special reports, prepared by patent examiners, on such subjects as catalytic treatment of automotive exhaust gases, four-channel sound systems, algicides, and charge transfer devices and surface acoustic wave devices, two areas in the forefront of electronics technology.

The Sixth Report also updates a report, issued in 1973, on patenting in solar, geothermal, and tide and wave energy technologies. Energy areas newly reviewed are the production of energy from waste material, and the generation of electricity by windmills.

The four-part report also presents some comparisons of economic and patent data. The interrelationships of R&D expenditures and manpower to patenting in six selected industries are explored.

The report concludes with a review of six patents, five U.S. and one French, which were most often references in U.S. patents issued during 1975.

In releasing the report, C. Marshall Dann, Commissioner of Patents and Trademarks, commented: "The Sixth Technology Assessment and Forecast Report, like those which came before it, is representative of the Patent and Trademark Office's continuing effort to make more readily available to the public the wealth of technological information and data generated by the patent system."

Copies of the Sixth Report are available from the National Technical Information Service, U.S. Department of Commerce, Springfield, Va. 22161. The report is identified by PB-254188. The price is $7.50 for paper bound copies and $2.25 microfiche.

Fewer Phones Ordered As Installation Charges Rise

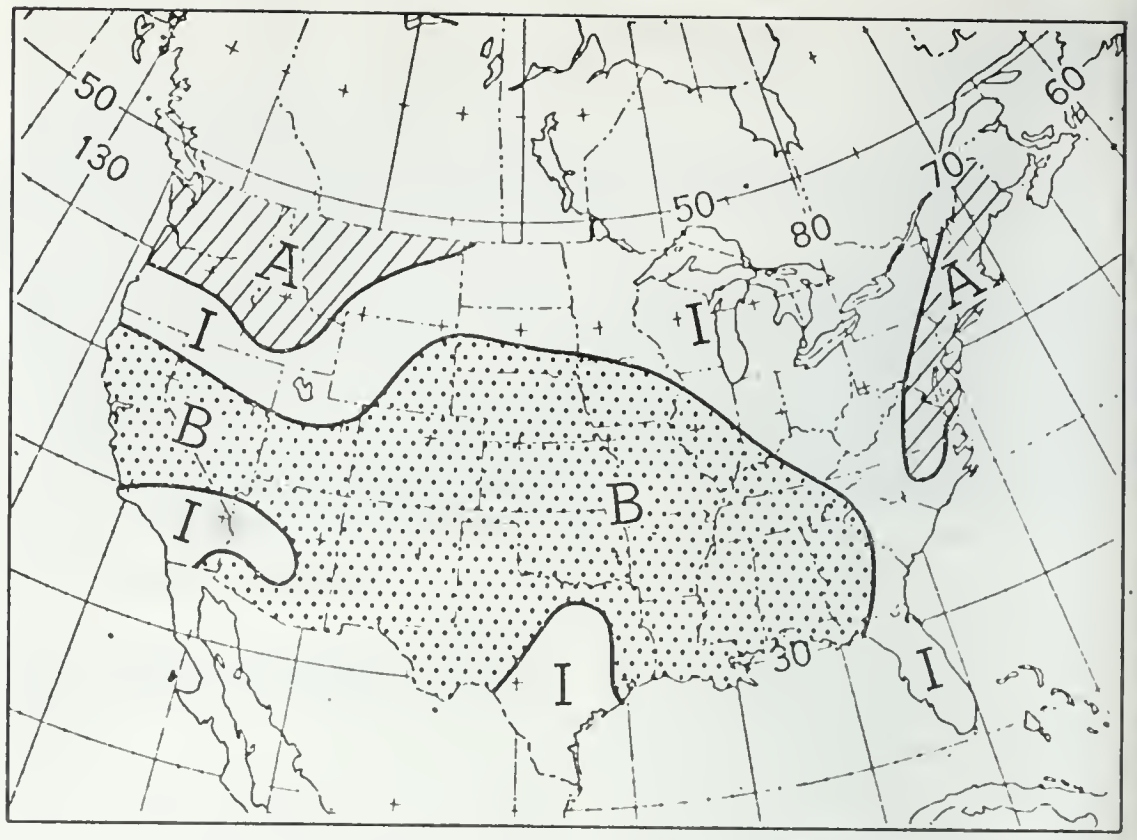
What happens to the volume of requests for telephone installations and disconnections following an increase in the installation charge? A report from Commerce's Office of Telecommunications, which studied the results of an increased charge in Colorado, indicates a drop of an estimated 9.4 percent.

The rates in Colorado increased from a minimum of $7 to a minimum of $23 for installation of a residential phone, and from a minimum of $7 to a minimum

of $15 for installation of a business phone. Approximately 4,800 fewer telephones were installed per month—or 57,000 per year—than had been anticipated, based on an economic regression model that projected what the rate of installation and disconnection would have been without the additional charge.

Of the above, 1,500 a month were potential residential main station telephones and the remaining 3,300 would have been business or extension phones. Moreover, the data suggest that about 2,050 customers who would have disconnected their phones each month did not.

The report, *Increased Telephone Installation Rates: A Statistical Analysis of Colorado's 1972 Rate Change*, OT Report 76-90, is available at $4 per copy from the National Technical Information Service, Springfield, Va. 22161. Its accession number is PB 255807



OUTLOOK FOR FALL—*Areas marked "A" have a 60 percent chance of having above normal temperatures through November. Areas marked "B" are expected to have below normal temperatures. Areas marked "I" are indeterminate, according to Commerce's National Oceanic and Atmospheric Administration.*

SPECIALTY STEEL INDUSTRY STUDIED WHILE IMPORT RELIEF IS IN EFFECT

Concerned officials and industry representatives will be able to monitor the progress which the specialty steel industry makes while import limits remain in effect on that commodity.

Commerce's Office of Import Programs has released the first in a series of quarterly reports reviewing the state of the specialty steel market while the import restrictions imposed June 14 by President Ford remain in force.

The report highlights data on apparent consumption and import/consumption ratios developed by the Department's Office of Import Programs following the President's temporary imposition of quantiative limitations on specialty steel imports.

Import relief has been provided to the industry in the form of an "orderly marketing agreement" with Japan setting limits on shipment from that nation to the United States. In addition, quotas imposed by Presidential action restrain shipments from other foreign producers. Specialty steel consists of stainless and alloy tool steels, representing about 2 percent of total steel import tonnage.

The relief action, effective for a three-year period beginning June 14, was taken after a finding earlier this year by the U.S. International Trade Commission that imports are a substantial cause of injury to the domestic industry. It is the first import restraint action taken under the "escape clause" import relief provisions of the Trade Act of 1974 and responds to a petition filed by the alloy steel and stainless (specialty) steel industry and the United States Steelworkers of America.

These restraints may be relaxed or removed at any time if the President finds that the domestic industry is regaining a healthy production and employment position.

In order to review the effectiveness of the restraint program and the industry's economic condition, a monitoring system has been initiated to provide pertinent data on a current basis. It includes data on shipments, imports, exports, apparent consumption, and import/consumption ratios by calendar quarters for the years 1974 and 1975 and first half of 1976.

Specialty steels are characterized by exceptional strength and hardness, and resistance to oxidation, heat, and abrasion. These materials are used extensively by industry in the manufacture of automobiles, appliances, aircraft engines, tools, and storage tanks, among others.

New Fire Academy To Be Located In Capital

Many of America's firemen will be responding to schoolbells instead of firebells in the near future.

The National Fire Academy called for by the 1974 Federal Fire Prevention and Control Act moved a giant step toward reality recently when Commerce Secretary Elliot L. Richardson selected the former Marjorie Webster College campus in Washington, D.C., from among more than 200 proposals for its site.

The National Fire Prevention and Control Administration, which will administer the Academy, is an agency of the Department of Commerce.

Secretary Richardson said that major fire service organizations throughout the United States expressed written support for selection of the Marjorie Webster site. Location of the Academy in the District of Columbia also will permit coordination of Academy programs with other ongoing programs of the Fire Administration.

The site, which covers some 8.5 acres of land in the northern corner of the District of Columbia, was approved by the National Fire Protection Association, the International Association of Fire Fighters (AFL/CIO), the International Association of Fire Chiefs, the National Volunteer Council, the International Society of Fire Service Instructors, the International Association of Black Professional Fire Fighters, and the International Fire Service Training Assn.

Academy programs will continue to depend on the ongoing research of the Fire Research Center at Commerce's National Bureau of Standards as well as the Fire Administration's National Fire Safety and Research Office, both of which are located in the Washington area.

While some building rehabilitation will be necessary, new construction is not needed. The Academy will retain the site's campus atmosphere and residential community setting. The Academy programs are planned for a small, mature resident student body with no more than 200 students in residence at any one time. Student activity will be intensive classroom and seminar-type instruction.

Productivity Conference Slated For Charleston, S.C.

Commerce's continuing campaign to increase the productivity of the nation's business moves to South Carolina later this month.

Commerce Department officials will join industry and academic experts at a September 28 conference at The Citadel in Charleston, S.C., to discuss methods and ideas for increasing productivity.

Designed primarily to help small and medium-sized businesses monitor and raise output of goods and services, the conference will offer attendees an opportunity to ask questions and engage in discussions with the speakers.

The Charleston conference is part of a nationwide series designed to inform business leaders about new productivity techniques and their application.

Because of the widespread interest in the subject, Commerce's Office of the Ombudsman has prepared a series of bulletins on productivity that are available through the Commerce district office in Columbia, S.C., or from the Office of the Ombudsman, U.S. Department of Commerce, Washington, D.C. 20230.

For reservations or further information contact the Director of Continuing Education, The Citadel, Charleston, S.C. 29409 (803-577-6900), or the Charleston, S.C. satellite office of the U.S. Department of Commerce (803-577-4171).

New Medical Technology Studied By Commerce Unit

Innovative medical technology will be the subject of an exhibit at the American Hospital Association's annual meeting in Dallas September 19-23, sponsored by Commerce's National Bureau of Standards (NBS). NBS has developed an Experimental Technology Incentives Program (ETIP) to seek ways of improving the environment for technological change.

On September 20, ETIP personnel will present a slide show and answer questions on the program.

ETIP conducts experiments in four areas: procurement policy, regulatory policy, economic assistance policies, and research and development policies. In the procurement area, ETIP is working with the Veterans Administration to select medical products, policies, and procedures that are suitable candidates for experimentation. The three initial products chosen are portable oxygen units, syringe and needle destructors, and surgical gloves.

For further information, contact Joseph Berke, ETIP, Room A735, Administration Bldg., National Bureau of Standards, Washington, D.C. 20234.

Calendar Of Business Events

Sept. 13-15—Washington — Transactional Analysis in Management, Georgetown Univ. For information, Betsy Girton, Continuing Management Education Program—SSCE, Georgetown Univ., Washington, D.C. 20057 (703-525-6300).

Sept. 13-17—Atlanta—1976 AAMA Convention/Bobbin Show, Georgia World Congress Center. For information, American Apparel Manufacturers Assn., 1611 N. Kent St., Arlington, Va. 22209 (703-524-1864).

Sept. 14-16—Chicago—Energy Management in Manufacturing Conference, Sheraton O'Hare Motor Hotel. Sponsors: Society of Manufacturing Engineers, others. For information, Technical Activities Dept., SME, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500 x403).

Sept. 14-16—Dallas—Increasing Machining Productivity with High Speeds & Feeds Clinic, Statler Hilton Hotel. Sponsor: Society of Manufacturing Engineers. For information, SME, see address above.

Sept. 14-16—Cincinnati—Power Coating IV Conference & Exposition, Convention Center. Sponsor: Assn. for Finishing Processes, SME. For information, Jon Grove, SME, see address above.

Sept. 15—Niagara Falls, N.Y.—1976 Small Business Assistance Conference, Niagara Falls Convention Ctr. Sponsors: Commerce, SBA and others. For information, Conference Headquarters, Room 1314, 111 W. Huron St., Buffalo, N.Y. 14202 (716-842-3354).

Sept. 15-16—Washington — Government Procurement Program, Federal Bar Assn. 1976 Convention, Mayflower Hotel. For information, FBA National Headquarters, 1815 H St. NW., Washington, D.C. 20006 (202-638-0252).

Sept. 16-17—San Antonio—1976 Regional Operations & Automation Workshops, Hilton Palacio del Rio. For information, American Bankers Assn., 1120 Connecticut Ave. NW., Washington, D.C. 20036.

Sept. 16-17—San Francisco — Project Management: Designing the Matrix, Hyatt Regency Hotel. Sponsor: The Wharton School. For information, Heidi Kaplan, N.Y. Conference Mgt. Ctr., 360 Lexington Ave., New York 10017 (212-953-7262).

Sept. 20-22—San Diego—Financial Analysts Federation Annual Fall Conference, Hotel Del Coronado. For information, FAF, 219 East 42nd St., New York 10017 (212-557-0055).

Sept. 20-22—Chicago—Successful Consumer Packaging, Sheraton Chicago. For information, Heidi Kaplan, N.Y. Conference Mgt. Ctr., see address above.

Sept. 20-24—Gaithersburg, Md.—8th Materials Research Symposium: Methods and Standards for Environmental Measurement, National Bureau of Standards. For information, Ronald B. Johnson, Materials Bldg., Room B 348, NBS, Gaithersburg, Md. 20234.

Sept. 21-22—Gaithersburg, Md.—Cryptography in Support of Computer Security, National Bureau of Standards. Sponsor: NBS's Institute for Computer Sciences and Technology. For information, Shirley Radack, NBS, 301-921-2731.

Sept. 21-23—Dearborn, Mich.—How To Select, Use & Maintain Coolants & Lubricants, Dearborn Inn. For information, Jerry Exner, Society of Manufacturing Engineers, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500 ext. 316).

Sept. 24—Rockford, Ill.—Business Opportunity/Federal Procurement Conference, Clock Tower Inn. Sponsor: U.S. Rep. John B. Anderson. For information, Mike Masterson, c/o Rep. Anderson, 1101 Longworth House Office Bldg., Washington, D.C. 20515 (202-225-5676).

Sept. 24—Toronto—Workshop on Safety & Health in the Chemical Industry, Royal York Hotel. Sponsors: Manufacturing Chemists Assn. & Industrial Accident Prevention Assn. (of Canada). For information, Milton Freifeld, MCA, 1825 Connecticut Ave. NW., Washington, D.C. 20009 (202-483-6126).

Sept. 29-Oct. 1 — Scottsdale, Ariz. — Marine Distribution of Bulk Plastics Resins, Scottsdale Hilton. Sponsor: Society of the Plastics Industry, Inc. For information, SPI, 355 Lexington Ave., New York 10017 (121-573-9400).

Sept. 30-Oct. 1—Palo Alto, Calif.—Software Management—Defense Systems & Other Federal Programs, Rickey's Hyatt House. For information, V. Trauh, American Institute of Aeronautics & Astronautics, Suite 1403, 444 W. Ocean Blvd., Long Beach, Calif. 90802 (213-437-7465).

International Commerce Report

U.S. Pressing Initiative At World Trade Talks

GENEVA MTN DISCUSSIONS COULD BE ASSISTED BY RECOVERY, SLOWED BY AGRICULTURAL PROBLEM

Will the worldwide trade negotiations in Geneva pick up momentum this fall and make significant progress toward the goal of expanding and liberalizing international trade? Is a target windup date of the end of 1977 still feasible?

Traders in every nation are asking these questions, echoing the concern expressed by President Ford and other heads of state at the economic summit meeting held in Puerto Rico this summer. Leaders of seven major industrial nations took that occasion to ask for a speedup in the Geneva discussions and restated their appeal — made at Rambouillet, France, a year earlier—that the negotiations meet the 1977 deadline.

Observers point to several circumstances that now affect the pace of the Multilateral Trade Negotiations (MTN). Economic uptrends in most major industrialized nations can ease some negotiating pressures and aid the process of agreement. On the other hand, uncertainties regarding national leaderships can be a drag to the negotiations. Several major nations, including the U.S., will hold national elections shortly. The entire membership of the governing Commission of the Common Market has a term of office expiring at the end of 1976, and substantial changes are expected.

The U.S. has attempted to keep momentum alive in the MTN, taking an active lead in the working groups and offering several comprehensive proposals designed to promote movement. The six negotiating groups (Tariffs, Nontariff Measures, Tropical Products, Sectors, Agriculture, Safeguards) have been at work since the spring of 1975.

Achieving progress in the Agriculture Group has proved to be a particularly thorny problem. Here there is a fundamental and continuing disagreement between the United States and the European Community regarding how the agricultural sector will be dealt with in the negotiations. The Community, seeking to minimize changes to its Common Agricultural Policy, views agriculture as an area requiring its own trading rules. The Community, therefore, would place sole responsibility for the conduct of negotiations on all issues affecting agricultural trade upon the Agriculture Group. According to the Community, any solutions developed in other negotiating groups should not be applied to agricultural products.

The U.S., with its substantially open market policy, has taken the position that agriculture and industry should be treated together throughout the negotiations. The U.S. believes that in order to assure that agricultural and industrial negotiations are undertaken "in conjunction," as is called for in the Trade Act of 1974, there must be a link between the Agriculture Group and other negotiating groups, particularly those considering nontariff measures and tariffs. Thus, the U.S. presents and discusses proposals in the functional negotiating groups with both agriculture and industry in mind.

Despite the pervasive agricultural problem, significant achievements have been made in other areas of the negotiations and can be exected to continue with the fall meetings. In March the U.S. negotiating team presented a comprehensive formula for tariff reductions. Developed after extensive discussions with representatives of private enterprise and consultations with Congress, the proposal seeks to achieve a significant overall reduction in tariffs and harmonization of rates. Subsequently, the Common Market offered its own formula. This relies solely on a harmonization approach, which is considerably less ambitious than the U.S. proposal. The MTN negotiators are scheduled to receive formula presentations from Japan, Switzerland and possibly other delegations this fall.

Completion of the varying presentations on possible tariff formulas will signal a period of hard bargaining, not only on the form of the tariff formula itself, but also on the rules and procedures for handling exceptions to the formula. Exceptions are integral to tariff negotiations. Thus far MTN negotiators have not gone beyond agreeing that great restraint ought to be used in excepting specific items from formula reductions.

Negotiations are nearing completion concerning the reduction of tariffs on tropical products. In launching the current round of trade negotiations, tropical products were set up as a "special and priority sector" for developing countries. The United States and other developed countries have offered lists of tropical products on which they are willing to negotiate tariff reductions. The LDCs have expressed disappointment with the developed country offers. The U.S. position that it expects some degree of reciprocity for its tariff concessions has been criticized by the LDC negotiators.

The U.S. is alone in seeking contributions from the LDCs in the tropical products context. The developing countries are resisting the suggestion that they offer contributions in accordance with their level of development, or at least are seeking to postpone the implementation of their contributions until the end of the MTN while securing early implementation of U.S. concessions. Consultations on tropical products will continue among the countries until the fall meeting of the Tropical Products Group. The developing countries are urging a final agreement at the earliest possible date.

Perhaps the most significant progress thus far has been made in the area of nontariff measures (NTMs), where the world is witnessing the first effort to deal with a range of nontariff distortions to trade during a major round of negotiations. Activity in this area has been intense. Until July, work on nontariff measures was concentrated in four fields: quantitative restrictions, standards, subsidies and countervailing duties, and customs matters. In July it was agreed also to include government procurement in the nontariff measure negotiations.

Negotiations on a draft code on government procurement practices have been going on for a number of years under the auspices of the Organization for Economic Cooperation and Development

(OECD) in Paris. Thus, in preparation for the first MTN meeting on government procurement, to be held next month, the OECD Secretariat has been asked to prepare a background paper on the draft code for the use of the MTN negotiators. Substantive meetings on government purchasing may begin early next year.

In the quantitative restrictions area, the U.S. plans to offer in November some specific suggestions on negotiating procedures. Bilateral consultations on quantitative restriction problems have been going on for some months. A U.S. proposal on negotiating procedures should help accelerate the pace of discussions.

Work will continue in the fall on the draft code of conduct on standards as an approach toward the resolution of trade problems presented by the wide use of product standards. Although considerable time-consuming work remains to be done, work on the standards code is probably more advanced than any other phase of NTM work. When work resumes on the code in the fall it will be reviewed for its applicability to agricultural and tropical products.

Concerning subsidies and countervailing duties, progress has been slower. The U.S. would like to tighten international rules concerning subsidy practices. Other countries are more interested in limiting the use of countermeasures, especially the U.S. countervailing duty law. The U.S. outlined a proposal to deal with both subsidies and countermeasures late last year. However, negotiations on the subsidies issue have been at a virtual standstill since the U.S. presented its proposal, due principally to the disagreement over whether agriculture products should be covered by such a proposal. The U.S. negotiators are hopeful that the fall round of meetings will bring about a more cooperative atmosphere on this issue.

Work on customs matters is broad and varied, including customs valuation, import documentation, customs nomenclature and customs procedures. Little substantive work has been accomplished in the customs area. However, as a result of recent bilateral discussions on MTN issues held over the summer, it is apparent that there is a desire to move ahead in the customs area.

Continuing as a complex issue is the sectoral negotiation approach. The use of this approach, which provides for the coordinated reduction or elimination of all barriers to trade, both tariffs and nontariff measures, in selected product areas, is still being considered. The United States has stated that it intends to propose a framework for sectoral negotiations in steel and is examining other product sectors to determine whether they may also be appropriate for sectoral negotiations.

The U.S. has explained its intention to seek negotiated solutions to cyclic distortions in steel trade while liberalizing conditions in this trade. Canada has also stated its intention to propose sectoral negotiations in the nonferrous metals and wood sectors. Some countries oppose consideration of a sectoral approach at this time. They prefer to wait until agreement has been reached on general approaches and it can be demonstrated that there is a need for a sectoral approach as a complementary technique.

A major U.S. objective has been to complement the lowering of trade barriers by the development of an improved international safeguards system. In July the U.S. presented its proposal, which sets up guidelines for countries that find it necessary to establish temporary import restrictions to assist domestic firms and workers who have suffered injury due to increased imports. This proposal for a negotiating framework will be discussed in substance next month.

It is still not known whether there will be a meeting this fall of the Trade Negotiating Committee, which last met in December 1975. This committee is charged with overall supervision of the negotiations. If the committee does meet, one issue is certain to be on the agenda—reform of the General Agreement on Tariffs and Trade (GATT), whose rules have provided the general framework for world trade during the past 25 years. The LDCs are particularly interested in GATT reform, and establishment of a GATT Reform Group within the MTN could bode far-reaching consequences for the existing world trading system.

U.S. Aviation Seminars In Three Latin Nations Sharpen Buyer Interest

Ecuador is looking toward replacement of both of its international airports, Venezuela plans to modernize its national aviation system, and Brazil is rapidly expanding its light-plane capacity. These and other developments contributed to the widespread interest in a series of seminars conducted in these countries recently by representatives of eight leading U.S. avionics and engineering firms.

Under sponsorship of the Commerce Department, with collaboration of the State Department and the Federal Aviation Administration, the seminars were attended by the heads of each country's civil aviation authority and other key civil, military, and technical personnel. The U.S. company officials made presentations on developments in aviation and airport technology, and at the same time learned more about each country's civil aviation agencies, development plans, and particular aviation problems.

For replacement of Ecuador's international airports—at Quito and Guayaquil—the government probably will be seeking to prequalify bidders interested in design and engineering contracts, possibly at this time or later this year. Contracts would be awarded by the end of 1977, according to present schedules. Venezuela plans to spend well over $100 million to develop its national aviation system, which will include radar coverage for the entire nation and replacement of much of the existing aviation support equipment. Brazil is striving to meet its own considerable internal light-plane demand. It is also seeking export markets, particularly in Latin America and possibly even in the United States. Seminar participants noted some receptivity to foreign investors capable of providing technology, and some were actively investigating possible joint ventures with Brazilian avionics and engineering firms.

All of the members agreed that the meetings gave their firms' products and services extensive market exposure. Walter Robinson of the engineering firm of R. Dixon-Speas was particularly pleased with the high caliber contacts he made. Without the seminar, he stressed, he would have had to make numerous trips to these countries and perhaps wait many months before obtaining access to key decision makers in the aviation field.

H. D. Shamblin of AEROCOM garnered an order of some $100,000 in consoles and communications equipment for the Maiquetia, Venezuela, approach control center. In addition, he is discussing the possibility of a licensing agreement to manufacture communications equipment with a Brazilian firm. He is highly optimistic with regard to the long-term future for his company in Latin America.

Kevin Beach of Cardion Electronics said he met key decision makers "who knew what they needed and what was required." He felt that his participation enhanced the reputation of his firm in the countries visited.

USSR Chamber To Sponsor Railroad Equipment Show

The USSR Chamber of Commerce is sponsoring an international exhibition of railroad equipment near Moscow in July 1977. Featured will be locomotives and sub-assemblies; freight cars; equipment for construction and maintenance of rail track; and baggage handling systems.

Interested firms should send 10 copies of catalogs to the USSR Chamber of Commerce and Industry, Directorate of Foreign Exhibitions in the USSR—Rail Transport '77, Sokolnicheski val 1-a, Moscow 107232. For additional information contact Christine Lucyk, Bureau of East-West Trade, U.S. Department of Commerce, Washington, D.C. 20230, phone 202-377-3352.

CHECKING THE ATMOSPHERE—*Anthony Porter (left) of Analgas Pty. Ltd. goes over specifications of a Dasibi ozone monitor with visitors at Sydney show.*

Australian Environmental Concern Augments Equipment Market, U.S. Exhibitors Find

The growing pressure of population on scarce water resources, increasing public and governmental concern for the quality of the environment, and the impact of pollution control legislation all combine to make Australia an attractive market for U.S. manufacturers of air and water purification and control equipment. This was evidenced by the high level of interest generated by the recent Clean Air and Water Equipment Exhibition at the U.S. Trade Center, Sydney.

The exhibition, with 17 participants representing 28 U.S. firms, featured the latest American equipment for the monitoring, measurement, abatement and removal of pollutants in air and water. The equipment, much of which was new to the Australian market, was viewed by some 900 key buyers from a range of industries, public utilities, and government. Polls of those attending indicated greatest interest in oil and water pollution control equipment, pumps, and flow measuring devices. Some visitors expressed an interest, for the future, in an exhibition of noise and dust control equipment.

A feature of the exhibition was a series of six technical sessions at which exhibitors were able to explain in depth new product developments and the latest advances in American technology. Each session attracted well over 100. Exhibitors recorded off-the-floor sales of $283,875 and projected sales of $3.2 million during the next year.

The total Australian market is predicted to reach $121 million by 1978. Although imports comprise more than 20 percent of all purchases of pollution control equipment, the domestic industry is growing in strength as a result of licensing and joint-venture agreements with overseas firms. For some time to come, however, domestic output will be heavily dependent on imported technology and components, and at the close of the exhibition, three licensee and two joint-venture agreements were under negotiation.

COMPUTER 'SPILLOVER' SHOW IN LONDON BECAME MAJOR EVENT

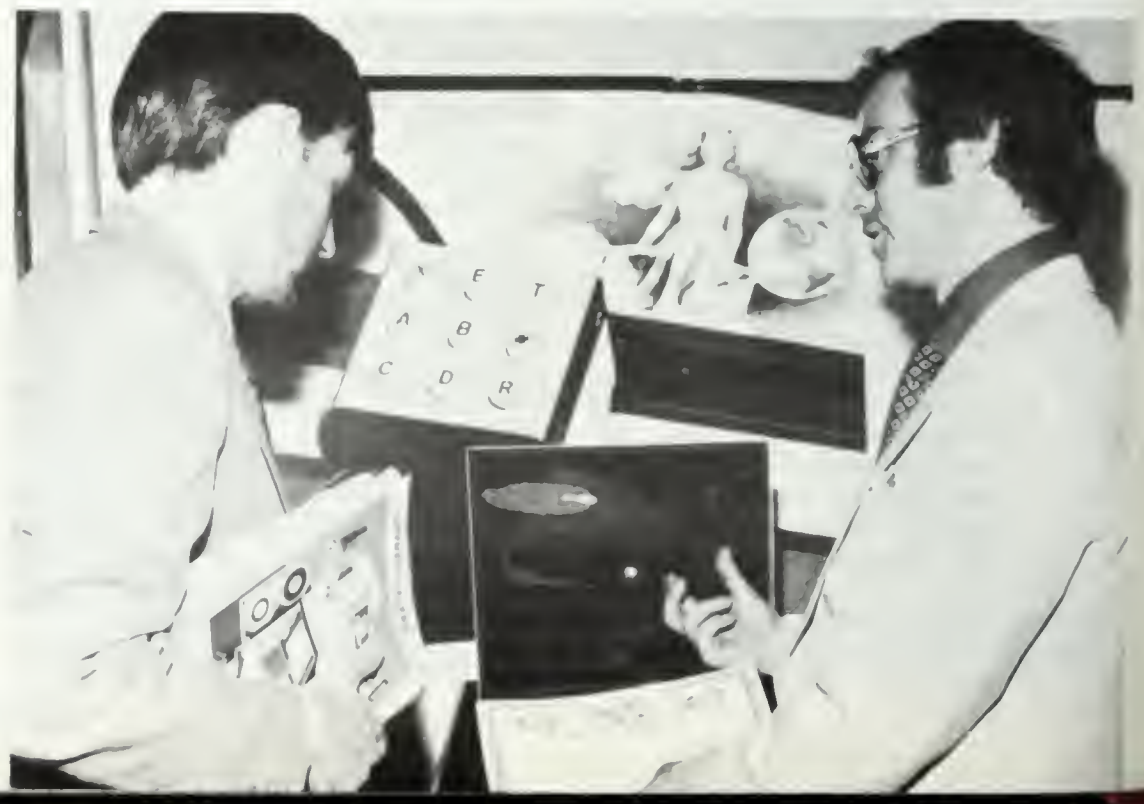
Due to strong competitive pressures in the U.S. and current lack of British and European competition, most U.S. products in the mini-computer and peripherals market continue to enjoy technological and price advantages in the U.K. market.

This was apparent at a computer exhibition this summer at the London U.S. Trade Center, held primarily as a "spillover" exposure for U.S. firms that could not be fitted into a jam-packed and highly successful January event. Designed for 12 firms, it snowballed into a full-sized exhibition with 30 participants, who greeted 1,603 visitors and reported $1,348,000 in floor sales, plus projections of $21,536,000 more over the next year.

Products appearing to have the best sales potential were: mini-computers, disc memory controllers, head per track disc memories, tape drive systems, data display systems, optical scanners, optical readers and microprocessors and microcomputers.

Due to the high rate of inflation in Britain and rising labor costs, British industry is trying to cut costs and increase efficiency. It is turning to computers, especially mini-computers, to assist in this effort, and this has sparked the remarkable interest demonstrated at the two Trade Center shows. Although there is a lack of competition for advanced U.S. products at present, U.S. producers should be aware that European firms, such as ICL, Siemens and Philips, are entering the scene.

INTRODUCTION IN BRITAIN—*M. J. Jackson (right), U.K. representative for Compuscan, Inc., explains how a hand-held optical scanner works in conjunction with a terminal, part of new system introduced to British market at* Minicom 2, *London U.S. Trade Center. At left is R. J. Colebrook of Aspen Electronics Ltd.*



SIGNS OF U.K. REVIVAL FIX ATTENTION ON NEED TO RESTOCK, REEQUIP

American exporters should at least maintain their current, important share of the United Kingdom market this year, and they may even attain a modest growth in sales by the early part of 1977. Britain's recession reached its low point toward the end of 1975, but there was no clear upward movement until the first quarter of this year, when the gross national product rose at an annual rate of 4 to 4.5 percent.

Inflation has been slowed. Industrial production is now shifting to an upward slope and a strong export performance is presently leading the country away from its slump. Problems of a fundamental nature do remain in inflation, unemployment and weak consumer demand. Productive capacity has been eroded by nearly two years of negative investment in manufacturing, but there are some signs of a turnaround, according to Borrie I. Hyman, Commercial Counselor at the U.S. Embassy in London.

Noteworthy near-term opportunities for American goods may be found in the gradual reequipping of industry, the rebuilding of depleted inventories and the ongoing need for components and materials to support the U.K. export surge. Specific areas of greatest promise are in high technology, including electronic components, data-processing equipment and peripherals; capital goods, including equipment for offshore oil exploitation and foundries; chemicals; waste water treatment equipment and systems; machinery and processes for graphic arts; agriculture equipment and accessories; quality consumer goods and fisheries products.

The encouraging signs for the United Kingdom economy should be welcomed but not exaggerated. Recovery thus far is modest, and it may be several months before such vital indicators as investment and employment show significant improvement. Having made this point, it is nonetheless valid to see in the overall picture a good potential for sustained if not rising export opportunities in selected areas.

The important thing is not to downgrade this market because of current problems. So crucial in these circumstances, business confidence seems to be on an upward trend. Actual and anticipated industrial growth is bolstering this confidence. Other confidence-inducing factors are the slow recovery of profit margins from very low levels, increasing new orders, indications that fixed investment has at least ceased to decline and the successful agreement among industry, labor and government for a second-phase incomes policy.

By mid-1977, the inflation rate may be brought to a single figure. It is now running at an annual rate of 15 percent, well down from the frightening level of 26.9 percent of not too many months ago. Further evidence of a building national consensus on the gravity of the country's problems and the need for early resolution comes from recent government-labor-industry meetings and studies on "industrial strategy," a medium-term program designed to improve the growth and efficiency of the nation's industrial plant.

Significant for the private sector is a statement emerging from this exercise noting that the government is "committed to promoting a profitable and vigorous private sector aspect of our mixed economy, and to giving greater priority to industry over consumption or even our social objectives." If such is indeed the direction of government policy and if it is backed up by deeds, business confidence may gain further and translate into sorely needed new investment.

Finally, the GNP is now growing at an annual rate of 4 to 4.5 percent, a respectable level and one in keeping with the government forecast. Over the next 12 months, the government expects GNP to grow at an annual rate of some 5 percent.

American exports to the United Kingdom in 1975 came to $4.53 billion, close to 10 percent of the market, making the United Kingdom the fourth most important U.S. customer. As noted, the U.S. should be able to hold this market share in 1976 and probably slightly increase it in 1977, despite the present dollar-pound exchange rate, which makes U.S. export prices somewhat less attractive than a year ago. On the other hand, in relation to third-country exports to the United Kingdom, the U.S. competitive position is sound. Our generally lower unit costs of goods and high quality are retaining and augmenting the numbers of British customers for U.S. products.

American exporters must of course be alert to the changing economic factors during this recovery phase in the United Kingdom. The U.S. Embassy will continue to try to identify areas of particular opportunity. Hyman knows from business contacts and trade shows that interest in advanced technology products from the United States remains high. Major shows and special promotions at the London U.S. Trade Center underline this observation. Some recent exhibitions there which proved notably successful featured mini-computers and peripherals; automotive diagnostic, maintenance and repair equipment; and process control instrumentation.

There is no question of the enduring strength of the U.K. market for American data processing equipment, particularly in the form of mini-computers and

IN THE U.K. NORTH SEA *Choctaw II, an offshore pipe laying barge, is shown laying part of a 30-inch, 22-mile connection between Brent and Cormorant in 500 feet of water. Oil from the Brent field area will be conveyed through this line to Shetland, which will have a refining capacity of one million barrels a day.*

peripherals. Equally firm is the demand for electronic components, which outstrips the capacity of U.K. manufacturers that cannot fully meet domestic and export requirements.

In seeking out industrial areas of the economy meriting government assistance, the "industrial strategy" program has identified more than 30 industries, including foundries. American firms with special technology and equipment in this field should begin now to explore opportunities. The embassy will be making market probes in this industry as well as in others noted as "strategic" in an effort to spotlight additional export targets for capital goods.

Offshore oil exploration and exploitation will offer export prospects for a long time to come. U.S. companies should be looking beyond the obvious equipment needs and investigate what appear to be significant possibilities in the supply of innovative platform design and equipment, subsea systems, maintenance and repair equipment and systems for safety, security, communications and pollution control.

Two dry years have aggravated water pollution problems for Britain. Agricultural and industrial waste, plus the growth of "new towns," have underlined urgent needs for both sewage and water treatment equipment and systems. This need will increase as industries now running well below capacity and new companies develop production to ride with the economic recovery.

Although U.S.-made tractors and other large field machinery have been displaced in most part by the products of U.S. subsidiaries in Europe, the British farmer's preference for a larger tractor means available power for a wider range of agricultural accessories. With new emphasis on corn and feedgrain production, the demand for equipment to handle, dry and store these grains has grown substantially. Also, significant change in the past two years in the British climate has heightened demand for all types of spraying equipment, especially the airborne type.

Even though consumer demand in Britain is low, squeezed by the incomes policy and inflation, quality goods and those with quality and novelty combined have made striking impressions on buyers.

Furniture, for example, has done exceptionally well both in retail establishments and at a recent show at the Trade Center. A special promotion across the board of American goods at a major department store in the English Midlands last spring proved out estimates of the demand for quality consumer goods, as did a recent Trade Center show on leisure goods, including do-it-yourself items.

Other product areas where market research and embassy investigation suggest there should be substantial export opportunities over the next year may be noted from some of the official U.S. promotions planned in the United Kingdom. September is a crowded month with a major U.S. participation at the Farnborough International Air Show, featuring avionics and aircraft accessories; a Trade Center show on specialized packaging, food processing and bottling equipment; participation in the Plant and Engineering and Maintenance Exhibition at the Birmingham National Exhibition Center; and a consumer goods promotion at Jenners department store in Edinburgh. Later in the year the Trade Center will feature a show on scientific and industrial lab instrumentation, and the United States will have an official pavilion in Offshore International in Birmingham. Next year will begin with Trade Center shows on data communications equipment in January and automated business equipment in February.

HONDURAS NEEDS IMPORTS TO SUPPORT RESURGENCE

The Honduran economy is expected to grow by at least 5 percent in real terms in 1976 following two years of virtual stagnation. Imports are forecast to total approximately $550 million this year, some 35 percent more than in 1975, with most of the increase in the form of capital goods and raw materials needed to supply the recovering economy.

In recent years imports from the United States have accounted for 40-45 percent of total Honduran imports. Commercial Officer Donald J. McNally believes that trade promotion efforts of the U.S. Embassy in Tegucigalpa combined with greater awareness of this market by American exporters can enable the U.S. to attain an even greater share.

According to the Honduran Central Bank, real GNP growth in 1974 was 3.5 percent. In 1975 the corresponding figure was minus 1.4 percent. The modest performance in 1974 resulted primarily from the effects of Hurrican Fifi which struck the country in September of that year, while the negative growth rate recorded in 1975 was caused mainly by continuing effects of the hurricane as well as a drought which affected much of the country from May to August.

Agriculture, construction and commerce are expected to lead the Honduran economic resurgence, with the greatest activity being generated by the public sector. The Honduran Government is nearing the end of reconstruction work initiated after the hurricane. It is now devoting itself increasingly to implementation of the National Development Plan announced in January 1974. The principal elements of that plan deal with execution of the country's agrarian reform law; industrialization of Honduras' forestry resources; encouragement of foreign and domestic investment, especially in the areas of industry and tourism; improvement of medical care throughout the country; extension of the road network in the Departments of Yoro and Olancho; and construction of a large hydroelectric plant at El Cajon.

The level of activity in the private sector will also be quite substantial. Principal private projects include construction of two 200-room hotels, construction and equipping of a 120-bed hospital, and purchase of machinery and yarn for expansion of the textile industry, agricultural equipment and chemicals necessary to double sugar cane production, food processing and canning machinery for citrus fruits, industrial chemicals for manufacture of soaps and detergents, and machinery for boning poultry and water treatment for the poultry industry.

Also, several Honduran entrepreneurs have expressed interest in a number of products (pharmaceuticals, electronic devices, toiletry products, candy, etc.) which they would like to produce under license from U.S. firms.

Important trade opportunities

Hospital Equipment and Supplies: The Honduran Government received a $14 million loan from the Inter-American Development Bank (IDB) in January to finance construction of a 50-bed maternity hospital in San Pedro Sula, eight 50-bed emergency hospitals in medium-size cities throughout Honduras, and 324 rural health centers. The hospital to be built in San Pedro Sula will be eventually enlarged to 400 beds and will become a general hospital.

The first bids have already been let on the equipping of a 522-bed university hospital to be inaugurated in 1977. Many more bids are expected to be published in the next few months. This is being financed with a $7.3 million IDB loan.

The government plans to begin construction on a 150-bed hospital in La Ceiba in 1977, at a reported cost of $3.5 million. However, many problems are still to be resolved before a firm financing package can be obtained.

IDB will provide approximately $900,000 to finance expansion of the government-run Santa Teresa hospital in Comayagua.

A group of private physicians plans to construct and equip a 120-bed general

hospital in San Pedro Sula. Construction is expected to begin in 1976 and be completed before 1978. Financing is to be provided by Honduran private banks.

Several of the largest private hospitals and clinics in Tegucigalpa, San Pedro Sula and Choluteca are now expanding and modernizing facilities. Financing will come from Honduran sources.

U.S. exporters enjoy a strong competitive position in this product field in Honduras. They have been accounting for more than 70 percent of hospital/medical product imports. Products expected to be in strong demand in the next 12-18 months are: X-ray equipment; diagnostic devices; laboratory equipment and supplies, especially reagents; operating room furnishings and lights; surgical instruments; disposables (syringes, gloves, bandages, etc.); autoclaves; food service equipment; laundry equipment; hospital furniture; and ambulances.

Agricultural Equipment, Machinery and Chemicals: The Honduran Minister of Natural Resources recently stated publicly that he expects Honduras to receive more than $150 million in credits for agricultural projects in the next 2-3 years, mainly from IDB, the World Bank, and the United States and Canada. These funds will be used mainly for infrastructure in the lower Aguan Valley and to provide financing, technical assistance, and basic inputs (agricultural machinery, fertilizers, pesticides, irrigation equipment, etc.) for the government's Agrarian Reform program.

The Honduran Banana Corp. obtained a $10 million loan from a consortium of international banks in June, to be used to finance operations of independent banana growers and banana cooperatives.

Agricultural activity by the private sector in 1976 will be significant, as cultivation of sugar cane, coffee, cotton and tobacco is expanded. Additional activity will take place in production of poultry.

Imports of plows; cultivators, harrows, seeding machinery; mechanical rakes, scythes, reapers and thrashers; incubators; and machinery for grading grains, fruits and eggs showed the greatest increase in demand in 1975 and are enjoying a good sales position in 1976. However, the lion's share of the import market in this area is accounted for by tractors and spare parts, which accounted for 73.6 percent of all agricultural machinery and equipment imported by Honduras in 1975.

Forestry Industries: In May, Honduras signed a memorandum of understanding with IDB and the Government of Venezuela regarding a loan of $103.4 million to be used to finance part of the Honduran Government's pulp and paper project, the total cost of which is now placed at $414.6 million. It is reported that $337.6 million will be spent on plant and equipment, $62 million on road construction, and $15 million on construction of a port facility at Puerto Castilla. Nearly $50 million of the IDB loan will be spent on road construction, $41 million is earmarked for the pulp and paper project, $10 million will go for purchase of capital stock in the project by the government, and the rest on engineering studies.

Initial work on the industrial part of this project will be centered on the construction of three sawmills, one to be built at Corocito and the other two at sites not yet determined. The sawmills, expected to be in operation in late 1979, are expected to produce 450,000 cubic meters of lumber annually.

The pulp and paper plant is expected to begin production in 1983 of 203,000 tons of cardboard and 28,000 tons of corrugated cardboard annually.

This activity will provide strong demand in the short-to-medium term for a substantial amount of machinery, equipment and services.

Road and Port Construction: The World Bank is completing final studies on the feasibility of a $30 million project to build a modern highway to connect Talanga-Juticalpa-Catacamas in the Department of Olancho. The Bank is to provide 75 percent of financing and the Honduran Government the rest.

The IDB provided Honduras with a $12.5 million loan in early 1976 to be used to pave the highway approaches of El Progreso as well as the Santa Rita-El Negrito-Morazan-Yoro road. Work on this project is expected to be initiated in late 1976 and be completed within 24 months.

The government has signed a memorandum of understanding with IDB which calls for expenditure of $49.6 million to construct 260 kilometers of roads in Olancho province as part of the previously mentioned pulp and paper project. Final studies of a 35-km. road from Corocito (proposed site of the pulp plant) to Puerto Castilla are now under way.

As part of the pulp and paper project, the World Bank will be called upon to provide approximately $15 million to finance construction of a modern port through which lumber and agricultural exports can pass. The General Manager of the Honduran Port Authority has stated that the port should be in operation during the first half of 1979.

This heavy construction activity is expected to produce strong demand for large earthmoving machinery and heavy construction supplies.

Tourism: The Honduran firm Compania General Hotelera, S.A. plans to begin construction of two 200-bed hotels in the northern area of Honduras in late 1976, one on the beach near the city of Tela, the other in San Pedro Sula. Approximately $11 million will be spent on construction and furnishing of these two hotels.

The Honduran Government estimates that it will spend $55-60 million on construction of the Tornasal Tourism Project between 1976 and 1985. This project will consist of several luxury hotels, condominiums, restaurants, recreation facilities, etc. Final study is expected to be completed before the end of 1976, with infrastructure work to begin in early 1977 and construction of the hotels, etc. in early 1978. The World Bank and Central American Bank for Economic Integration are expected to provide financing for this project.

Other important tourism projects include modernization of hotel and travel facilities at the Ruins of Copan and on the Bay Islands.

These projects are expected to result in a series of significant sales opportunities for U.S. manufacturers of hotel and motel supplies and equipment, small boats, scuba diving equipment, and other resort and recreation equipment.

Electric Power: The National Electrical Energy Enterprise (ENEE) will continue to expand the national electric grid throughout rural areas of Honduras in 1976 and 1977. The U.S. Embassy has already reported several government tenders resulting from this activity. Items being sought by ENEE are mainly electrical hardware, cable and transformers.

ENEE has encountered financing difficulties regarding its plan to construct a 1,730,000 kwh/year hydroelectric dam at El Cajon. The estimated cost of that project is now put at $350 million. Construction, originally scheduled to begin in mid-1976, is not expected to commence for at least two more years.

Selling points

U.S. products continue to face tough competition from Western European and Japanese exporters in the Honduran market. U.S. products sometimes suffer because they offer more quality (and a correspondingly higher price) than most Honduran importers want. With very few exceptions, it is the lowest cost product which dominates the Honduran market. Secondary selling points are: availability of credit, rapid delivery, and availability of spare parts and service.

McNally advises people interested seriously in this market to make frequent trips from the home office. This is important in order to be able to monitor closely the activity of local representatives and to establish and maintain personal relationships with key business and government leaders. The U.S. Embassy in Tegucigalpa welcomes U.S. business visitors and stands ready to provide whatever assistance possible to make the visit successful.

Trade Opportunities Brighten As Greece Resumes Growth

After two years of economic uncertainty, triggered by the worldwide slump beginning in fall 1973 and exacerbated by the Cyprus emergency in the summer of 1974, Greece now appears poised for a new period of economic growth, reports Arthur J. Laemmerzahl, Commercial Officer at the U.S. Embassy in Athens.

The growth rate is likely to be more modest than the previous expansionary period, but with significant pledges of assistance from the United States and the EEC, as well as the prospects of domestic oil to help reduce its import bill, officials are optimistic that Greece will be able to successfully complete the modernization of its economy necessary for full membership in the EEC.

This growth—the five-year plan now under preparation assumes growth rates of 6 to 7 percent per year through 1980—will afford significant opportunities for alert U.S. exporters. Certain areas of the economy ought to be especially watched, inasmuch as growth in these sectors appears both inevitable and necessary if Greece is to meet its targets for the future. These include transportation, agriculture and food processing, and tourism.

Transportation: Since ancient times, Greece's geography has been a major economic problem. Good overland transportation is made extremely difficult by rugged and mountainous terrain, and much of Greece's total surface area is separated into islands scattered throughout the Aegean and Ionian Seas. Great strides have been made since the war in linking the country, with improvements in surface and air transportation, but much remains to be done to effect a more complete integration of the economy. Among projects presently planned and/or under way are:

- Athens Airport: Despite recent improvements to the landing field and terminal facilities, the present airport at Ellinikon is rapidly approaching the limits of its capacity. Relocation of the existing Athens Airport to Spata has been proposed and a master plan is under preparation. Until completion of the Spata Airport, improvements in the Athens Airport are also planned in order to meet increasing traffic requirements.
- Athens Subway: Downtown Athens is rapidly becoming choked with vehicular traffic, and the one existing electric (partly underground) railway is inadequate to divert the increasing flow. A new subway has been under consideration for some time, and an American consortium has helped prepare the feasibility study. The government is now moving into the design stage, again with an international tender.
- Port expansion: Improving transportation links with Europe and the Near East also calls for improvement of port facilities. In addition to expansion and improvements at Piraeus, Iraklion and Volos, there is an ambitious plan for a new port at the mouth of the Axios (Vardar in Yugoslavia) river to service the increasing flow of traffic generated by the industrialization of Northern Greece and improved ties with Greece's Balkan neighbors.
- Railroad improvements, including electrification: In an effort to divert road traffic to rail, and to increase capacity of the railroad networks, Greece's five-year plan will call for electrification of the Athens-Thessaloniki main line, and widening to standard gauge the line between Athens and Patras. Roadbed improvement and some new construction, including amalgamation of the two Athens terminals, is also called for.
- Highways: The World Bank will extend to Greece a $30 million loan to finance a $64 million roadbuilding program. The program provides for rebuilding of the Patras-Pyrgos-Olympia highway; procurement of highway maintenance equipment worth $12 million; and preparation of studies for new highways.

In all these fields, American technology should be able to help supply Greece's needs, whether in technical studies or design engineering, or in modern equipment such as cranes, highway maintenance equipment, airport communications and navigation equipment, locomotives, etc.

Agriculture and Food Processing: Greece's agriculture has made great strides since the war, and Greece is now self-sufficient (and even an exporter) of such staples as wheat and rice. Although the total area available for cultivation is small, Greek farmers do produce an exportable surplus of certain fruits, vegetables and wines.

The proper exploitation of Greece's potential as a supplier of fruits and vegetables to Northern Europe will call for a major drive to modernize and expand capacity for handling fresh produce, food processing, canning and freezing. Because of Greece's location at the Southeastern tip of Europe, transportation of fresh produce to Northern Europe has been a greater problem for Greece than for such countries as Italy and Spain, and improved methods for handling fresh produce are urgently needed.

In addition, food processing, canning, and juicing are currently relatively underdeveloped in comparison to Greece's future partners.

Attractive opportunities should exist for the following types of equipment: packers, shakers, juicers, sorters and graders, refrigeration and freezing equipment, packaging machinery, drying and dehydration equipment, washers, mixers and batchers, and crushers and blenders.

Tourism: Greece's natural beauty, native hospitality, relatively reasonable prices, and historic and cultural landmarks make it an unusually attractive tourist haven. As other Mediterranean countries have found, tourism development can be self-limiting: the more hotels, the more crowded the beaches, the fewer people want to come back. Greece, with the longest coastline in Europe, has ample room for further development of tourism without becoming overdeveloped.

Demand for additional tourist facilities, moreover, is especially strong, and growing. This year, over 4 million tourists are expected to visit Greece, compared to 3.2 million in 1975. Tourist earnings in 1976 are expected to reach $900 million, compared with $622 million in 1975. The number of beds presently available in Greece is 185,000; this is expected to rise to 215,000 during the year.

Of particular interest to American suppliers is the desire of the Greek Government to create convention facilities and encourage the construction of additional luxury hotels in Athens. Athens has many advantages as a convention center, unexploited until now because of a shortage of such facilities. Advantages include excellent communications, location astride airline routes to the Near East and Africa, and a mild year-round climate. A factor to bear in mind is that more Americans than any other group of tourists visit Greece and they spend more per day than any others. Greek hoteliers are therefore conscious of the necessity for a high level of comfort and sophistication in new hotel construction. Among products likely to be of interest are: airconditioning and refrigeration equipment, water purifiers, pool supplies, kitchen and food service equipment, audio equipment, and electronic conference facilities.

In this same connection, the government's determination to halt the spread of industrial pollution and to clean up certain areas already suffering from problems of air and water pollution should be of interest to American companies, who have established world leadership in the field of pollution control. A new central government agency to deal with this problem has been created, and indications are that legislation to be proposed will provide very strict standards.

The embassy will endeavor to keep U.S. industry informed of specific projects and opportunities in all these fields through its reporting to the U.S. Department of Commerce. Similarly, the U.S. Department of Commerce will sponsor several events in Greece to help keep Greek businessmen and technicians abreast of the latest U.S. offerings.

Prospects Are Encouraging For U.S. Sales To Indonesia; Financing Remains Important

Despite a tight financial outlook resulting from debt problems of the state oil company Pertamina, Carleton C. Brower, Economic/Commercial Officer at the U.S. Embassy in Jakarta, reports that prospects for U.S. exports to Indonesia remain encouraging, especially in certain priority sectors.

Contrary to early expectations of an oil boom year, 1975 turned out to be difficult for the Indonesian economy. Oil earnings—which account for three-quarters of total export receipts—registered a 3 percent decline. At the same time, depressed world commodity prices reduced non-oil export earnings (most importantly timber, rubber and copper) to $1.8 billion—18 percent below the year before. Imports, meanwhile, rose about 30 percent last year, slashing the trade surplus to one-fourth of 1974s. This, together with a chronic services' deficit, resulted in a current account gap of about $1.7 billion, in contrast to a small surplus of 1974.

The government in 1975, furthermore, had to bail out the state-owned oil monopoly, Pertamina, to the tune of at least $1.55 billion in foreign exchange for paying off short-term obligations. As a result of these pressures the government: borrowed more than U.S.$1 billion of commercial five-year loans for revenue purposes; scaled down existing major projects; and adopted a go-slow policy with new ones. Foreign reserves fell to a low of some U.S.$350 million last September, but bottomed out and have risen somewhat.

Inflation is still running at 20 percent per year—a rate disturbingly higher than in most of Indonesia's neighbors and trading partners. Nevertheless, gross national product is expected to continue to increase at a rate of about 7 percent per year in real terms. And significantly for sales of U.S. goods and services, imports should continue growing fairly rapidly.

Although the government moved firmly and effectively in dealing with the Pertamina debt crisis, there will be long-range adverse effects. The World Bank expects the debt service ratio to peak at almost 20 percent in 1979, imposing constraints on Indonesia's finances for the next few years.

For the coming year, at the June 1976 meeting of the International Government Group on Indonesia (the IGGI, made up of the World Bank, IMF, Asian Development Bank and 14 bilateral donors of funds for economic development), the World Bank called for new IBRD and ADB commitments at $700 million; bilateral donor credits on soft terms of $700 million; and another $700 million in government commercial credits. The donors responded generously, if not quite at the target levels, and it appears that the needed funds will be available.

Demand has now begun to improve for oil and other exports such as timber, rubber and tin. The rice harvest looks good, and stocks are satisfactory. However, President Suharto's austere budget of "caution and vigilance" and the effects of the tightened economy have been felt throughout the business and banking community. The rate of improvement in the Indonesian economy is very much dependent on recovery in the industrialized world.

Despite the generally unfavorable 1975 picture, a number of factors have combined to produce strong growth in U.S. exports to Indonesia. These include large Eximbank loans; continued, if reduced, investment in the oil sector; continuing aid; competitiveness of U.S. products; and procurement for major projects.

U.S. exports to Indonesia in 1975 rose by 53 percent to $801.1 million. The main item was machinery, up 68 percent to $317.9 million; leaders were construction and mining machinery and electric power machinery. Chemical fertilizer was second with $87 million, followed by transport equipment, mostly aircraft ($79.6 million), iron and steel ($52.8 million), cotton ($54.2 million) and wheat $49.6 million).

U.S. imports from Indonesia in 1975 rose by 32 percent to $2,220.6 million, resulting in a bilateral trade balance of $1,419.5 million in Indonesia's favor. Indonesia's biggest export to the United States by far was crude petroleum—$1,812.3 million, up 51 percent from 1975.

U.S. exports to Indonesia in 1976 will total well over $1 billion—a strong growth but at a lower rate than last year. Best prospects for the future continue to be machinery and equipment for major projects, with an especially good outlook in textile machinery, cargo and materials handling and timber and wood processing.

U.S. firms now have an excellent opportunity to obtain a foothold in the Indonesian textile machinery and equipment market. Indonesia plans to expand its textile industry to provide employment as well as clothing for its more than 130 million people, and reach self-sufficiency. The emphasis will be on expanding yarn and textile production.

To reduce dependence on imports of raw materials and intermediate goods, investment will also be made in petrochemicals, fiber manufacturing, rayons and cotton growing. The clothing industry will be promoted as will dyeing, finishing and printing.

U.S. firms have thus far failed to obtain any significant share of this attractive market except for raw cotton. Manufacturers of textile and garment manufacturing equipment and machinery should send sales representatives who can speak authoritatively about financing.

Opportunities also exist to capture a share of turnkey engineering/construction and equipment supply contracts for new wood and products processing plants. Indonesia has the most extensive tropical hardwood stands remaining in the world, and government policies now demand industrialization of the forestry sector. Experts place the maximum sustainable yield of Indonesian forests at between 21 and 24 million cubic meters, and the government seeks domestic processing of 40 percent of this by 1979.

The government provides significant

NICKEL PROJECT NEARS COMPLETION—*P. T. International Nickel Indonesia is completing work on its Stage I nickel processing facilities, above, near Soroako on the island of Sulawesi. Output of this complex will be 16,000 metric tons of nickel a year. Stage II, set for 1978, will raise output to more than 45,000 metric tons.*

incentives to invest in wood processing facilities. Its emerging export promotion strategy for plywood, sawn timber and allied products will necessitate higher standards than currently prevail in the domestic market; this implies improved techniques, and presumably more modern equipment. Finally, opportunities for Indonesian timber exports are opening up in Europe as supplies of African hardwood become depleted.

Materials handling equipment is at the core of much future Indonesian economic development. There are $12 to $13 billion worth of major agribusiness, industrial and mining projects planned for the next five years, the products of which require substantial materials handling. The total tonnage of all products handled in Indonesia is expected to double by 1980.

Materials handling equipment will represent a major portion of foreign exchange costs for port projects, and a significant portion for other major projects. Also, major inland transport and warehouse related materials handling equipment purchases are now under way. U.S. firms have an excellent chance to capture a significant share of this emerging market.

Those firms already in the Indonesian market know that they must work very closely with their agents, keep in touch with at least one of the four American bank branches or five American banks with representative offices, maintain contact with the U.S. Department of Commerce, and visit the Embassy's Economic/Commercial section in order to keep abreast of developments in Indonesia. Those firms not yet introduced to this market, but becoming aware of the opportunities which it offers, should visit the nearest Department of Commerce District Office to review prospects.

If seriously interested, officials should be prepared to visit the country for a firsthand look. Such visits should not be perfunctory—communications are bad, government officials harried and information questionable, and serious visitors need time to overcome these factors to move toward a successful visit.

A key factor is the need for such visitors to speak authoritatively not only about their products but also about financing. Awareness of the banks with which their company works, possible terms to be offered, use of FCIA, etc., are all among the most important elements in a sale. Such visitors should also be equipped to talk about after-sale service, possible training and technical help built into the sales package. European, Australian and Japanese competitors often succeed on the basis of these factors and Americans fail because they are not equipped to speak authoritatively on them. The Embassy is ready to assist with detailed briefings and leads.

INTERNATIONAL BUSINESS REPORTS

Iran: The Chase World Information Series on Developing Business in the Middle East and North Africa. Published by the Chase World Information Corp. 183pp. $265.

For those who wish to take advantage of the rapidly expanding trade and investment opportunities in Iran, this publication (the first in a series covering the entire Middle East and North Africa) provides the best practical introduction to the Iranian business environment available in one short volume. While this study highlights key features of Iran's cultural and political context as well as the most prominent features of the agricultural, industrial and petroleum sectors of the economy, its most useful contribution is in the wealth of practical information for the business person arriving for the first time in Tehran. Topics ranging from Iranian cultural sensitivities of which the negotiator should be aware to steps necessary for applying for foreign capital importation are treated in readily usable format. Although some of the statistical presentations suffer from the constant change which is a hallmark of the Iranian economy, they offer a convenient reference for this key Mid-East market.

Write: John A. Lewis, Chase World Information Corp., 1 World Trade Center, Suite 4627, New York, N.Y. 10048.

Managing the Company Tax Function. By Arnold J. Olenick. 321pp. $29.95.

Reference book designed to help corporate tax managers cope with the problems and cost of federal, state and local tax compliance. Arranged by type of function—from organizing the tax work through tax preparation, planning, filing and audit—and includes sample tax forms, charts and checklists, and model forms and worksheets.

Write: Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632.

Country Market Sectoral Survey on Nigeria. Published by the Department of Commerce in the International Marketing Information Series. 190pp. $2.60.

Assesses the current dimensions of Nigeria's $6 billion import market and analyzes what U.S. industry might supply over the next five years, in terms of Nigeria's Third National Development Plan. Spells out implications for U.S. trade and investment in 24 growth sectors of Nigeria's boom, oil-based economy: electric power, communications, petroleum, mining, financial institutions, education, health care, aviation, commercial road transport, railroads, water transport, building construction, road construction, water and sewer systems, chemicals, construction materials, textiles, printing, manufactured foods, crops and crop processing, livestock and animal products, fishing, forestry and wood processing, semi-arid land development.

Write: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Calendar For World Traders

Sept. 15-17—New York — World Trade Institute seminars on Solving Tax Problems in Compensating Employees Overseas and International Accounting.

Sept. 22—New York—International Executives Assn. seminar on The Initial Marketing Approach.

Sept. 22—Boston—International Business Center of New England seminar on Export Documentation and Traffic—Part 1, Marriott Motor Hotel, Newton, Mass. For information, 617-542-0426.

Sept. 22—Greenville, S.C.—Export-Import Bank seminar, Sheraton (Downtown) Inn. For information, Columbia District Office, 803-765-5345.

Sept. 27—Madrid, Spain—International Roundtable Conference and Seminar on Finance, Credit and Collection Problems, Eurobuilding Hotel. Sponsor: FCIB/Europe. Contact: FCIB-NACM Corp., 475 Park Ave. South, New York, N.Y. 10016.

Sept. 27—Washington, D.C. — International Marketing Institute seminar. Roger Stechschulte of Commerce's Bureau of East-West Trade will speak.

Sept. 28—Dayton, Ohio—Sell in Venezuela seminar. Sponsors: Cincinnati Commerce District Office, University of Dayton. For information, Ralph Jones, 513-529-4626.

Sept. 29—Detroit—Sell in Venezuela seminar. For information, Commerce District Office.

Sept. 29—New York—International Executives Assn. seminar on Establishment of an Export Department.

Sept. 30—St. Louis—Sell in Venezuela seminar, Cheshire Inn, Clayton, Mo. Sponsors: Commerce District Office, World Trade Club, Regional Commerce and Growth Assn. For information about this seminar call Paul Bergman, 314-425-3303.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

Technical Seminar on Machine Tools. Czechoslovakia, Hungary and Bulgaria. Nov. 6-20. These countries offer growing markets for U.S. manufacturers of machine tools. Company participants will present technical papers in each country to a highly select audience of buyers, technicians, and end-users. Contact Judith Robinson, 202-377-3376.

Computers and Peripheral Equipment Exbn. and Seminar, U.S. Trade Center, Sydney. Nov. 8-12. The Australian computer/peripheral market is currently valued at over $211 million. The U.S. is Australia's leading supplier with a market share of about 50 percent. However, competition is intense with strong competition coming from the U.K., West Germany and Japan. Total computer consumption in New Zealand totaled $14 million in 1974; the U.S. accounted for $4.2 million. An annual growth rate of 10-15 percent is predicted. Call Don Mathes, 202-377-4957.

Technical Sales Seminar in Instrumentation. New Delhi. Nov. 22-Dec. 11. The Indian Government has accorded priority to expansion in the heavy industrial sectors, particularly petroleum exploration, production and refining; fertilizer production; and petrochemicals. In addition, there is increasing emphasis on scientific research and development and providing modern medical services on a mass basis. The demand is for sophisticated instrumentation required to fill technological gaps and achieve economic objectives. Foreign exchange is readily available for this purpose. Will be held in conjunction with the first World Instrumentation Symposium and International Trade Exposition (WISITEX) which opens in New Delhi, Nov. 22. William J. Bushwaller, 202-377-4511.

Engineering Design Components. U.S. Trade Center, Milan. Nov. 23-27. Components, materials and technology in the machinery, automotive, aerospace, and other equipment and electro-mechanical industries will be featured. Transmission components, hydraulic and pneumatic components, electrical and electronic controls, special materials, shapes and forms, joining systems and components are included. U.S. products have tremendous potential in this market. Runs concurrently with BIAS, international automation engineering exhibition, at the same fairgrounds. J. Michael Springmann, 202-377-4975.

HEVAC-76 International Trade Fair. Tehran. Nov. 24-30. The United States is still Iran's No. 1 supplier, claiming better than a 20 percent share of a market the U.S. Department of Commerce predicts will go to $40 billion by 1980. The rapid increase in population, the jump in national income as a result of oil price increases and a dramatic rise in the standard of living within the past decade have considerably intensified construction requirements in Iran, particularly in housing. The market for HEVAC equipment has grown from $150 million in 1975 to an estimated $340 million in 1976. According to the Fifth Development Plan (1973-1978), approximately $6 billion is targeted to improve the housing situation. In order not to let these orders go by default to foreign competition, the U.S. Department of Commerce is planning this showcase for heating, ventilation, air-conditioning, plumbing, refrigeration and sanitation equipment, architects/engineers and contractors. Call Franc Manzolillo, 202-377-2991.

Electronica 76. Munich. Nov. 25-Dec. 1. Germany's total consumption of electronic components is predicted to exceed $1.7 billion in 1977, while the market for electronic production and test equipment is expected to reach $343 million. In both categories, imports account for more than 40 percent of the entire market and the United States is the country's leading supplier with a share of about 28 percent. Best sales opportunities exist for U.S. exporters of color TV tubes, capacitors, resistors, integrated circuits, diodes, transistors, production and test equipment, and materials. Best market prospects are in computers, measuring and testing instruments, industrial equipment, and medical electronic equipment. Don C. Schmadel, 202-377-2177.

Telecommunications Equipment & Systems Exhibit (JEEP). Paris. Nov. 29-Dec. 2. Significant opportunities for exports should arise in the entire telecommunications market as a direct result of the French Government's recently announced massive program to increase the telephone system's capacity some 300 percent during the period 1976-1980; about $10 billion will be expended on equipment purchases. Some 6-8 new-to-market firms will be eligible for this event. Contact Ned Krause, 202-377-5381.

Analytical Instruments for Science and Industry Exhibition. U.S. Trade Center, London. Nov. 29-Dec. 3. The British market for analytical instruments for science and industry was valued at $85 million in 1974. Expanding technology, increased investments by industrial and government laboratories, and a general economic recovery should push the market to $100 million in 1979. Imports from the United States, which account for more than 25 percent of the total market, are expected to jump from $22 million in 1974 to $32 million in 1979. U.S. firms are the leading import suppliers of four categories of products--automatic analyzers, gas chromatographs, oscilloscopes, and atomic absorption spectrophotometers—and have obtained a large share of the British market through their technological superiority and effective marketing practices. Robert L. Bradshaw, 202-377-4461.

Metalworking, Finishing Equipment and Machine Tools Product Literature Display. Johannesburg and Cape Town. Nov. 29-Dec. 8. In 1972, South Africa's apparent consumption of metalworking, finishing equipment and machine tools registered $68.8 million; for January-September 1975 this figure rose to $161.1 million. Local production accounts for only about 6 to 7 percent of these market figures. Over the last few years, there has been substantial growth in the local industries that rely on the machine tool industry, partly because of the need to upgrade quality as a result of the increasingly stringent local programs supporting South African industry. This product literature display should provide an excellent opportunity to attract the attention of South Africa to the latest advances in technology in U.S. products. Call 202-377-3973.

Metalworking Trade Mission to Korea, Taiwan and the Philippines. Nov. 29-Dec. 10. The metalworking industry is considered one of Korea's best prospects for U.S. exports. Korean imports of machine tools and metalworking machinery increased from $63 million in 1974 to $84 million in 1975. Taiwan is a good customer of the U.S. machine tool industry, with the U.S. ranking second to Japan, the leading supplier. Taiwan's efforts to decrease its dependence on Japanese imports may enable the U.S. to increase its share of the machine tool market. U.S. machine tool exports to Taiwan were valued at $3.9 million in 1974 and $5.2 million in the first ten months of 1975. Industrial activity is expanding steadily in the Philippines, thereby increasing market opportunities for U.S. metalworking equipment, especially production type. Philippine imports of metalworking and finishing machinery and equipment exceeded $23 million in 1974, up from $12 million in 1973. Over the next few years, the average annual growth rate is estimated at 15 to 20 percent. Mollie Cleveland, 202-377-4705.

Pulp, Paper and Converting Machinery and Equipment Trade Mission to Brazil. Dec. 1-10. The Brazilian pulp and paper industry has grown rapidly over the last ten years in order to satisfy an exploding domestic demand. Production doubled in the 1967-1973 period alone. Foreign investors have begun showing interest in Brazil as a source of pulp and paper for the world market over the medium and long-term. To date, exports have not been significant, and imports have grown substantially. However, ambitious plans have been announced to make Brazil both self-sufficient in paper and a major exporter of pulp (two million tons) by 1980. Investments of $2.75 billion will be required for achievement of the 1980 goals. Forty percent of this, or $1.1 billion, has yet to be committed, according to government figures. Longer-term goals (over the next 20 years) see investment of $17 billion in the pulp and paper industry and export earnings of $51 billion. Call William J. Bushwaller, 202-377-4511.

U.S. Exhibition in Second Dakar International Fair. Dec. 3-12. In 1974 this exposition attracted 500,000 visitors with 670 firms from 44 countries participating. Senegalese development expenditures of over $500 million a year, rising interest in U.S. sources of supply, an improved U.S. competitive position due to the recent ending of EEC reverse preferences, and extensive regional sales prospects, provide enterprising American firms an excellent opportunity for market penetration and development. Commerce's pavillion will accomodate 20 U.S. manufacturers of diverse equipment. Philip Michelini, 202-377-5148.

Catalog Exhibitions on Do-It-Yourself Equipment and Products. Brussels, Dec. 4-12, and Utrecht, Jan. 24-30. These shows will be organized by the U.S. Department of Commerce at two major European exhibitions, "Hobby 76" at the Rogier Center in Brussels and "Karwei 77" at the Royal Netherlands Industries Fairgrounds in Utrecht. The growing cost of services related to home rehabilitation, limited expansion of new construction, inflation and tight money are encouraging growth in the do-it-yourself field in both Belgium and the Netherlands. These trends also have made U.S. products more price competitive in Europe and have created an excellent marketing opportunity for those manufacturers selling do-it-yourself equipment or products. Call 202-377-3973.

Hospital and Medical Equipment and Supplies Catalog Exhibit. Port of Spain, Trinidad and Santo Domingo, Dominican Republic. Dec. 6-10. Both countries are embarking on and updating programs in the field of health care. Trinidad, entirely dependent on foreign suppliers for its hospital and medical equipment and supplies, has obtained sizable loans from the World Bank and the Inter-American Development Bank to implement its programs. The Dominican Republic is attempting to expand its health care into the rural areas, while fortifying existing facilities and building new ones in its cities. Both countries place increasing emphasis on the purchase of medical and surgical equipment, hospital equipment and disposables. These are markets where American exporters are already doing well and are expected to do much better, due to proximity and due to Trinidad's recent alignment with the U.S. dollar and abolition of Commonwealth Preferences in its tariff structure. Call 202-377-3973.

Market Research In India

In conjunction with Catalog Shows in New Delhi and Bombay Jan. 10-20 (see item on this page), the U.S. Embassy in New Delhi has completed three market research reports on the rapidly growing electronics industry in India. The reports outline opportunities for U.S. manufacturers of computer peripheral, electronic components and production equipment, identify potential customers and agents, and offer other marketing data.

Priced at $10 each, they are available from the National Technical Information Service, U.S. Department of Commerce, P.O. Box 1553, Springfield, Va. 22151. Identify them as follows: India — Market Research Report on Computer Peripheral Equipment—DIB No. 76-06-509; India—Market Research Report on Electronics Components—DIB No. 76-07-512; India—Market Research Report on Electronic Industry Production and Test Equipment—DIB No. 76-07-513.

Industrial Process Controls Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Dec. 6-10. The Singapore Government's plans for a major petrochemical complex and new construction in the electrical energy sector are expected to push sales of process control instrumentation to $12.5 million by 1978. Singapore's requirements for these products are met entirely by imports. To participate contact J. Lee Barnes, 202-377-3893.

ECOLOGY '77—Environmental Purification and Pollution Control Instrumentation and Equipment. U.S. Trade Center for Scandinavia, Stockholm. Dec. 6-10. Sweden, Norway, Denmark and Finland, currently and individually warring against pollution, have programmed an aggregate total of $2 billion plus to be spent on environmental protection by 1984. A significant portion of this amount will be earmarked for the purchase of instrumentation, equipment and controls. Louis Quay, 202-377-3089.

Offshore International Exhibition. Birmingham, England. Dec. 7-10. The continuing development of North Sea oil resources offers good opportunities for U.S. suppliers of oil and gas field exploration, production and transmission equipment, instruments, systems, supplies and services. U.S. exports of oilfield equipment and pipe to countries active in the North Sea oilfields are substantial and growing. U.S. exports to the United Kingdom alone in 1975 totaled $32 million, up from $19 million in 1974 and $11 million in 1973. Demand is highest for oilfield equipment and pipe, but sales opportunities also exist for a wide range of supportive products, e.g., floating structures (rigs, barges, vessels, tanks, etc.), helicopters, telecommunications equipment, valves, processing and field instruments, welding equipment and drilling fluid. At least five new North Sea fields are expected to open by the end of this year. A $3 billion market for products and services is expected in 1976, with the total rising to $5 billion by 1980. Official exhibits will be mounted by many countries. George A. Kemp, 202-377-3713.

Advanced Business Equipment and Systems Exhibition and Seminar. Taipei. Dec. 13-17. This JEEP (Joint Export Establishment Promotion — for new-to-market participants only) will focus on a rapidly growing market in the Republic of China. The economy in Taiwan has recovered strongly from the recent world recession. Imports of U.S.-produced business equipment and systems are expected to reach $17.5 million by 1979—up from $11.2 million in 1974. Peter Wilson, 202-377-4227.

Building Products and Construction Equipment Catalog Exhibit. Philippines, Thailand and Malaysia. January. All three countries are initiating aggressive building programs and expect to import most or all of the building products and construction equipment required. Pre-engineered and modular construction are either established techniques or are gaining wide acceptance in all three markets. Reinforced concrete, wood-frame, hollow building block, and structural steel are the common building techniques. Aluminum and wood are used for window and door frames. The program in the Philippines is the most dynamic, with an expected 40 percent growth in consumption of building products and construction equipment by 1980. The programs of the other two are highly promising, enhanced further by the fact that they import nearly all that they use in this field. Call 202-377-3973.

Pet Products Exhibit (JEEP). Paris. Jan. 10-13. By 1985, France is expected to be the largest market in all of Europe for pet foods and accessories. Its 51 million residents currently care for some 7.5 million dogs, 7.5 million cats and the contents of 2 million bird cages and 1 million aquariums. One family in two has at least one pet. Because of the market's growth rate, good opportunities exist for American firms to introduce new products. Some 6-8 new-to-market firms will be eligible for this event. Ned Krause, 202-377-5381.

Data Communications Equipment Exhibition. U.S. Trade Center, London. Jan. 10-14. The U.K. data communications market, presently estimated at $150 million, is expected to reach $175 million by 1980. Imports account for over 90 percent of domestic consumption of this equipment, with the U.S. share above half. Items to be emphasized are computer peripheral controllers and interface devices, combination I/O devices and processors, input equipment, output devices, and parts and accessories of data communications systems. Commerce will provide a complete range of services including market promotion, agent distributor search, booth design and construction, and marketing assistance. Potential licensees and joint venture partners will also be invited. In 1974, sales results at the same event were almost $2 million off-the-floor with an expected $25 million for the following 12 months. Anita F. Brownstein, 202-377-4443.

Electronics Production and Test Equipment and Electronic Components Catalog Exhibit. New Delhi and Bombay. Jan. 10-20. India is currently making a determined effort to accelerate the overall development of its electronics production capability. Indian planners have recognized that components constitute the essential base for the building up of a domestic electronics industry, and, as a result, the market for production equipment has expanded greatly. The Indian Government Department of Electronics is committed to develop a viable indigenous computer industry by establishing production facilities for mini- and midi-sized systems. The U.S. currently holds 75-80 percent of the total Indian import market for production and test equip-

ment, and in 1974 the U.S. accounted for 46.5 percent of Indian imports of electronic components. Both markets should be expanding greatly. Call 202-377-3973.

Timber Industries Equipment Catalog Exhibit. Madagascar, Zaire and Central African Republic. Jan. 13-25. Madagascar, Zaire and the Central African Republic are planning major investments in their timber industries in the near future. "Timber industries" include those involved in logging, preparation of timber for construction or pulp and paper, preparation of plywood and veneer, or woodworking for housewares, handicrafts and other wood articles. These countries manufacture little, if any, of the equipment necessary for these industries. Although there is immediate sales potential only in the C.A.R., Madagascar has taken a World Bank loan for a major pulp mill project within the next five years, and Zaire is in need of retooling and expanding its timber industries in the near future. C.A.R. and Madagascar have eliminated tariffs against the U.S., and this, combined with devaluation of the U.S. dollar, has made U.S. timber industries equipment much more price competitive. Call 202-377-3973.

Microwave Technology and Test Instruments—Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. Jan. 19-21. With the French Government's recently announced plan to expend $30 billion during the next 5 years to modernize the national telephone system and with the recognized technical superiority of U.S.-made microwave products and test equipment, France promises to be a prime export market for U.S. manufacturers. Featured will be components, circuits, test and measurement instruments, equipment and systems, and antennae. Contact George Ruffner, 202-377-5381.

Motor Vehicle Maintenance Equipment, Replacement Parts and Supplies Exhibition. U.S. Trade Center, Mexico City. Jan. 25-28. The Mexican motor vehicle census has increased from 800,000 passenger cars, trucks and buses in 1960 to 3.2 million in 1974. Mexican purchase of motor vehicle replacement parts, service equipment and automotive chemicals was $194 million in 1974 and is expected to more than double by 1980. Mary R. Wiening, 202-377-4463.

Business Equipment and Systems Exhibition. U.S. Trade Centers, Paris, Jan. 31-Feb. 3; London, Feb. 8-11. These events will provide exceptional sales opportunities for American manufacturers. Past experience has shown that they attract executives influential in the purchase of equipment. The U.S. Trade Centers in Paris and London provide an effective and economical means of reaching buyers or setting up distribution. Exhibitor's contribution fee is $900 for companies new-to-market and $2,000 for those already established. Dwight L. Umstead, 202-377-4414 or 2177.

Avionics and Ground Support Equipment Technical Sales Seminar. Greece, Italy and Yugoslavia. Feb. 1-10. Seminar sessions will be conducted in Athens, Rome and Belgrade. "State of the art" presentations emphasizing the latest technological achievements in specific areas of avionics and ground support equipment will be given. Product categories to be included encompass communications such as traffic controls and flight instrumentation such as navigational aids commonly found in aircraft. Also, terminal support equipment and products used to test and service aircraft and aircraft engines as well as baggage and cargo handling systems. Airport and aircraft requirements are expanding rapidly as efforts are made to modernize and improve air transportation systems in these countries. W. Bradley Tyrrell, 202-377-5285.

Medical Equipment Technical Sales Seminar. Czechoslovakia, Hungary, Poland. Feb. 1-15. Officials of these three countries have expressed deep interest in purchasing American medical equipment to improve their health care systems. This seminar will provide a proven, effective method to develop markets in Eastern Europe. Gary Roberson, 202-377-3376.

Hi-Fi Equipment Exhibition. U.S. Trade Center, Milan. Feb. 4-7. A special opportunity to show and sell the latest in hi-fi equipment is being offered to a limited number of American manufacturers. The U.S. Trade Center staff in Milan will launch an exceptional promotional campaign aimed at the widest possible trade and consumer audience exposure. AM-FM stereo equipment, amplifiers, speakers, synthesizers, electric guitars, tuners, microphones, headphones and complete amplifier systems are some of the items that will make up the exhibition. Call Mike Springmann, 202-377-2762.

Poultry Equipment Mini-Exhibit/Seminar. U.S. Commercial Office, Moscow. Feb. 7-10. The USSR's 1976-80 Five-Year Plan calls for a 100 percent increase in poultry production to be achieved by more mechanization and introduction of progressive techniques. New mechanized poultry farms and factories are planned and existing poultry farms are to be rebuilt using new machinery and technology that must be imported. Call Richard Bell, 202-377-5163.

Maritime USA '77—Port and Shipbuilding Exhibition. Kaohsiung. Feb. 7-11. The market for maritime, port and shipbuilding equipment in the Republic of China is growing at a rapid pace. Imports are estimated to reach $317 million by 1979. U.S. manufacturers are expected to supply one-third of this market, which consists of both government and private enterprises. Dave Horridge, 202-377-2798 or 5545.

Printing and Graphic Arts Exhibition, U.S. Trade Center, Tokyo. Feb. 14-18. Carefully researched projections of the Japanese market for printing and graphic arts equipment indicate a growth from $290 million to $335 million over the next three years. In 1979 total imports will approximate $83 million with the U.S. share exceeding $25 million. Imported equipment will include typemaking and typesetting machinery, presses, bookbinding machinery, and photographic equipment for the graphics industry. Purchasers will be interested in both new investment and replacement equipment. During the recession period of 1974-1975 imports of printing and graphic arts equipment registered a 20 percent decline; however U.S. exports in this product category for the same period increased nearly 20 percent, demonstrating growing demand. Cantwell Walsh, 202-377-4056.

Printing & Graphic Arts Equipment Product Literature Display. Johannesburg and Cape Town. Feb. 14-25. Trade sources indicate that for 1976-1980 a general growth rate of between 10 and 12 percent can be expected for printing and graphic arts equipment in South Africa. South Africa must import all of its printing and graphic arts equipment except for less sophisticated equipment such as sink units and washing equipment. Despite their appreciation for the quality and sophistication of American-made equipment in this field, a major share of the market goes to other suppliers. The primary reason is the lack of exposure of U.S. equipment in South Africa against the extensive promotion efforts conducted by U.S. competitors. This product literature display is important to offset these trends. Call 202-377-3973.

Agricultural Machinery & Equipment Exhibition. Guadalajara. Feb. 16-20. Mexican agricultural machinery and equipment imports are expected to exceed $110 million this year and are projected to increase by 25 percent annually for the next three to four years. Guadalajara is the second largest city in Mexico and one of its major agricultural centers. Call C. M. Cummings, 202-377-4463.

Pro-In '77, International Design Engineering Conference and Exhibition. Duesseldorf. Feb. 18-21. This exhibition, the second of its kind in Germany, will feature components, materials and technologies. It is international in scope and is structured to reach a broad market. Included are: materials, shapes and forms, mechanical and power transmission components, fluid power-hydraulic and pneumatic, electric and electronic power and control and joining systems and components. Don Schmadel, 202-377-2177.

Communications Equipment. U.S. Trade Center, Tehran. Feb. 27-March 3. The government is in the process of establishing a modern national communications system, and plans to expand communications facilities by 1000 percent during the next ten years. Iranian imports of communications equipment amounted to $185 million in 1972 and are projected to increase to $400 million by 1980. The majority of this equipment will be imported, since Iranian manufacturing capability in the field is limited. Karl Reiner, 202-377-2952.

Equipment and Textiles for Sewn Products Exhibition. U.S. Trade Center, Milan. March 8-11. Italian imports of equipment and textiles exceed $53 million. The U.S. Government is offering American manufacturers of such equipment an outstanding opportunity to substantially increase the U.S. market share. Italian customers for equipment and textiles for sewn products are presently in a position where they must innovate and modernize facilities, and require the latest equipment and highest quality textiles. Marcia Griffin, 202-377-4509.

Motor Vehicle Maintenance Equipment, Replacement Parts, and Supplies Catalog Exhibit. Nigeria, Zaire and Zambia. March 9-22. As a result of Nigeria's oil revenues the government has devised a five-year $50 billion development plan to cover all sectors of the economy and raise the national standard of living. A substantial part of the plan will be devoted to maintaining and expanding infrastructure ($7 billion for highway construction alone). Nigeria is still wholly dependent on imports to satisfy motor vehicle maintenance equipment needs. Couple the Nigerian demand for imports with the surge in motor vehicle assembly plants and there will be strong demand for maintenance equipment and parts for the foreseeable future. Zambia is a landlocked country and thus has to rely heavily on land transport systems to move

copper to foreign ports. Zaire has been actively seeking direct foreign investment to enable it to grow. Foreign aid has been directed towards the agricultural and transportation sectors. 202-377-3973.

Industrial Instrumentation. Leipzig Spring Fair, German Democratic Republic. March 13-20. The second U.S.-sponsored exhibition at Leipzig will feature industrial instrumentation primarily applicable to the machine tool and processing machinery construction industry, the chemical industry, and the electrical engineering industry. Emphasis on these sectors is based on a realignment of economic policy goals calling for reinforcement of the raw materials base, an increase in and improvement of consumer goods to the public, and a production increase in the export sector. Buyers and trade officials from throughout Eastern Europe and the Soviet Union see this as their opportunity to inspect western goods and make purchasing decisions. Closing date: Sept. 30. Richard Bell, 202-377-5163.

Building Products and Systems, Construction Equipment and Architectural Hardware Exhibition. U.S. Trade Center, Tokyo. March 14-18. In 1974 the Japanese market for these products was $34 billion. The forecast for 1980 is $54 billion. New construction there is strongly influenced by western style and ideas. Private and public construction in 1974 was 2 million units valued at $67.9 billion. The 1980 projection calls for 3.1 million units at $110.1 billion. The Japanese seek advanced design interior and exterior building products of quality, and knowledge of building systems and methods that U.S. manufacturers can supply. The details for these conclusions are available in a market study prepared in Tokyo for the U.S. Department of Commerce. Robert Levine, 202-377-4056.

Commercial and Industrial Security Equipment Exhibition. London Trade Center, March 14-18, and Milan Trade Center, March 22-26. Strong and growing demand for this equipment has been identified by recent market research. The combined market for Italy and the United Kingdom amounts to about $350 million, of which about one third represents imported equipment. Products having high sales potential include intrusion alarm devices, security cameras, closed circuit television systems, access control equipment, fire detection alarms, automotive checking systems, anti-shop lifting devices, "bomb sniffers" and many others. Contact Sam Spaulding, 202-377-4508.

Tokyo Anti-Pollution Exhibition, TAPEX '77 Trade Fair, Harumi Pier, Tokyo. March 14-18. Japan's remarkable economic and industrial growth has spawned the worst aspects of high-paced industrial development with all forms of accompanying pollution: air, water, solid waste and noise. Demand for pollution control instrumentation alone will be $390 million by 1980 reflecting an annual growth rate of 15 percent. By the end of 1976, the Ministry of International Trade and Industry estimates, the market for all pollution corrective equipment will top $3.27 billion. Pollution technology offers opportunities for advanced U.S.-designed corrective equipment and instrumentation. The iron and steel, electric power, chemicals and primary metals industries project increased investments in pollution. Mara Yachnin, 202-377-5751.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

0900—SENEGAL — Firm, established in 1972, seeks U.S. joint venture partner to expand into **integrated seafood processing operation.** American firm's investment would be about $255,000. Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76700.

2000—FRANCE—Large, well established firm seeks joint venture arrangement for **processing and canning any products for human or animal consumption.** Currently specializes in processing and canning fruits and vegetables, especially mushrooms and asparagus. Established 1964, employs 300. Products marketed in France and other EEC countries. For name and address of person to contact for additional information, contact Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76701. WTDR.

2035—GUATEMALA — Established company seeks license agreement from well-known U.S. company to produce **mayonnaise and salad dressings.** Currently produces edible oils and fats and also operates soap, detergent and glycerine plants. New products would be distributed in Guatemala and other Central American countries. Ing. Carlos Farner, Technical Director, Industria Guatemalteca de Aceites y Grasas, S.A., Via 3, 6-69, Zona 4, Guatemala City, Guatemala. P-76702. OPIC.

2041—JAPAN — Large chain of confectionery stores seeks latest U.S. technology and equipment to mass produce **frozen dough** for delivery to small bakeries. Operates six confectionery mills and over 300 chain stores throughout Japan. Sales in 1975 were $45 million. Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76703.

2522, 2542—UNITED KINGDOM—Company seeks licensing and/or joint venture arrangements to manufacture products either related to existing product range or new products suited to technical skills. Presently manufactures **library shelving, warehouse pallet racking, general storage shelving, filing cabinets, etc.** Employs 100. W. H. McKeown, Dir., Sperrin Metal Products Ltd., Draperstowne, Co. Derry, N. Ireland. P-76684.

2599—BELGIUM—Largest manufacturer of metal hospital beds seeks licensing arrangements to produce **latest types of equipment for hospital rooms, including beds, chairs and tables.** Has 600 employees and markets throughout EEC. Francis Mertens, Sales Manager, Joseph Mertens International N.V., Deurnestraat 208, 2510 Mortsel. P-76704.

2834, 2844—UNITED KINGDOM—Manufacturer of patented **medicines, toiletries, cosmetics, hair preparations, etc.,** seeks licensing arrangement for manufacture of similar products. Distribution network is done through wholesalers, drug stores and food and grocery outlets. A. E. Embleton, Managing Director, D.D.D. Company Ltd., 94 Rickmansworth Road, Watford, Hertfordshire WD1 7JJ. P-76685.

2844, 2834—ECUADOR—Seeks collaboration with manufacturer interested in granting names, capital, machinery and equipment, and technical assistance for production of **pharmaceutical preparations for human and veterinary use, and cosmetics and toilet preparations.** Sixty percent of capital to be contributed by local party. Manufacturing plant will be set up near Guayaquil, where water and electric power is available. Raw materials would be obtained from American partner. Pedro M. Hansen-Vik, P.O. Box 497, Guayaquil. WTDR. P-76686. OPIC.

3041—ECUADOR — Group of investors wishes to locate U.S. companies interested in joint venture or licensing arrangement for manufacture of **fan belts and radiator hoses.** Financing will be provided by investors, whose business interests are closely related to automobile industry. Abraham Frietman, Casilla 6444-CCI, Quito. Telephone: 249-676. P-76696. OPIC.

3131—AUSTRALIA — Largest manufacturer of footwear components seeks licenses to produce **molded sole and heel units for all type of shoes (particularly men's leisure and fashion shoes)** using rubber, P.V.C., thermo plastic rubber, polyurethane and E.V.A. D. B. Mack, Manager, Duncan Rubber Co. Pty., Ltd., 29 Smith St., Marrickville, N.S.W. WTDR. P-76705.

3312—THAILAND—Firm wishes to find partner for joint venture to produce **steel pipe for water distribution use.** U.S. partner should be able to supply equipment and technical know-how to manufacture steel pipe conforming to AWWA C201-6 Standard. Initially, production capacity will be in range of 100 tons per month. Sizes of pipe are 150-1,500 mm diameter

by 6 meters long. Equipment for applying cement mortar lining and hydraulic pressure test of 750 P.S.I. to be included. Equipment with possible conversion to produce petroleum pipe conforming to API Standard preferred. Mit Anantachart, Taveesin Engineering Ltd., Part., Boonmit Bldg., 8th Floor, 138 Silom Rd., Bangkok. WTDR. P-76697. OPIC.

3420 — SWITZERLAND — Small manufacturer of precision tools and dies, precision safety locks as well as general industrial equipment seeking to expand and diversify activity by introducing new lines for manufacture under license. Mainly interested in **items requiring metalworking operations** such as novel types of locks, hand tools, dies for use on metalworking machine tools, etc. Specializes in working of stainless steel. Lionel J. Amaury, Executive V.P., LUXAR S.A., P.O. Box 1860, Aigle. P-76687.

3494—BELGIUM — Manufacturer is interested in obtaining license for manufacture of **nuclear equipment valves up to four inches in diameter.** Interested American firms contact Pierre Boulanger, Commercial Engineer, CEDITEC A.S.B.L., 22 rue Buisseret, 7000 Mons, Telephone: (065) 33.45.08. In any correspondence addressed to CEDITEC, please use as reference the following: PB/JH/C8101/76595. P-76688.

3537—UNITED KINGDOM—Firm seeks licensing agreement for manufacture of **component parts for aircraft and associated equipment.** Presently operates as manufacturer, distributor and exporter of aircraft and avionics components, clay pigeon target launchers and model yacht accessories. R. A. Healey, Mng. Dir., Redthorn Engineering Works Ltd., College Lane, Weymouth, Dorset. P-76689.

3551—ARGENTINA—Firm seeks license to produce **fruit and vegetable dehydrating ovens.** Currently manufactures food processing equipment, employs 50 and has annual sales of about $400,000 annually. Provision of plant engineering services to food processors also included in company's activities. Sales territory includes Argentina and other Latin American countries under LAFTA program benefits. Sergio Fernandez, Dir., Establecimientos Metalurgicos Lopez Carrillo S.A., Sargento Cabral 151, 5519 San Jose, Guaymallen, Mendoza. P-76706.

3551, 3552—NETHERLANDS—Manufacturing licenses sought to produce **machinery and apparatus for food and carpet industries.** Products would be sold in EEC countries. Firm is experienced in these fields. J. G. A. Van Den Eijkel, Manager, Eur-O-Matic BV, S-Gravelandseweg 22, P.O. Box 25, Weesp. P-76707.

3559 — GERMANY — Leading manufacturer of **machinery and equipment for processing raw tobacco, cigarette, cigar and pipe tobacco and packaging machinery** seeks licenses from U.S. manufacturers of related new-to-German and European market products. Established 1854, employs 200. Copy of firm's brochure available on loan basis from Overseas Products & Investment Opportunities Staff, Office of Export Development, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. Wilhelm Quester, Maschinenfabrik, Postfach 420288, Berrenrather Strasse 282, 5000 Koeln 41. P-76708.

3569—GERMANY—Seeks license and/or joint venture agreement to manufacture **centrifuges.** Currently produces centrifuges for continuous de-oiling of metalworking chips and also centrifuges with automatic cycle control. Ms. Doris Atkind, Trade Promotion, European-American Bank & Trust Co., 10 Hanover St., New York, N.Y. 10005. P-76712.

3600—ITALY—Firm performing manufacturing and turnkey contracting in **installation of mechanical, electrical and instrumentation for industrial plants, electrical generating plants, electrical transformer stations, electrical transmission lines, and petroleum industry** with workforce of 1,300 and 200 engineers is interested in subcontract, joint venture and manufacturing agreement. Has facilities for stocking and distribution. Also has marketing strength in Italy, Europe, Middle East and Africa. Personal meetings can be arranged in either U.S. or Europe. Reply to CIME, Via Petrella 21, Milan 20124, Telex: 39650. P-76690.

3600—UNITED KINGDOM—Firm seeks licensing arrangement for production of **medical electronic equipment, high speed recorders for use in medical or scientific laboratories and for industrial applications, and photo-electric food sorting machines.** Presently operates as manufacturer and distributor of similar equipment. A. J. Smale, Mng. Dir., Devices Ltd., 26-28 Hyde Way, Welwyn Garden City AL7 3AP, Herts. WTDR. P-76691.

3622—GERMANY—License or assembly arrangement sought for **measuring and controlling accessories.** Currently manufactures ribbons, tapes, ink rollers, felt pads, recording pens, recording electrodes, sapphires and recording ink for recording instruments and would like to expand its production line. Customers include firms producing measuring instruments, chemical factories, steel works and rolling mills. Established 1956, has 170 employees. Dia Nielsen GmbH, Industriestrasse 1, 5160 Dueren. Attention: Herr Busehke. P-76709.

3645, 3646—CANADA — Seeks licensing arrangement for assembly of parts for **commercial and residential lighting fixtures.** Plant is housed in modern building and consists of 12,000 ft. of factory space. Plant facilities are located close to downtown area and international harbor area. Owns sheet metal equipment (punch press, shears, 8 ft. break press, etc.), aluminum and steel welding equipment, as well as high quality paint plant with phosphate cleaning and gas baking oven. Specializes in manufacture of non-standard architecturally designed chandeliers and commercial type lighting. E. J. Kingsley, President, Western Lighting Fixture Co., Ltd., 876 Cordova E., Vancouver, B.C. V6A 1M4. P-76698.

3674—SWITZERLAND — Seeks licensing agreements for manufacture of **semiconductors and related devices.** Licensed production would be by third parties. Edgar A. Ruckli, Granax AG, Electronics Div., Gartenstr. 14, CH-8002 Zurich. P-76660.

3679 — KOREA — Diversified manufacturer of **electronic component and steel fasteners** is seeking joint venture arrangement with U.S. firm for further expansion and for development of sales distribution in U.S. market. Rexford Kim, Chicago Branch Office, Hong Joo Industrial Co., Ltd., 7206 North Claremont Ave., Chicago, Ill. 60645. P-76711.

3679—UNITED KINGDOM—Firm seeks licensing agreement for manufacture of any form of **electronic assemblies or instruments.** Presently operates as manufacturer of wide range of electronic equipment including test equipment, and supplies both commercial and defense markets in U.K. Other items manufactured include printed circuit assemblies for logic and digital machine control, sonar equipment, H.V. power packs, electronic weigher units, reactor instruments, control gear, gamma alarm monitors, A.C. and D.C. amplifiers and communication equipment. O. L. Wright, Mng. Dir., Redcliffe Electronics Ltd., 24 Emery Rd., Brislington, Bristol BS4 5PQ. P-76692.

3728—FRANCE — Seeks to manufacture under subcontract **aircraft parts, accessories or components.** Established 1956 and is large manufacturer and exporter of private planes. Also acting as subcontractor for Societe Nationale Industrielle Aerospatiale and Avions Dassault. Annual sales volume $16 million. Jean Pichon, Deputy General Manager, Reims Aviation, B.P. 2745, 51062 Reims Cedex. P-76693.

3825—SWITZERLAND—Manufacturer of wirewound potentiometers seeks to diversify activity. Firm seeks licensing arrangements from U.S. producers of **resistors and non-wirebound potentiometers.** J. Jacques Tappy, Mng. Dir., ANTAX SA, P.O. Box 27, 1024 Ecublens. P-76699.

3832—UNITED KINGDOM—Firm acting as agent for optical products, spectacle frame cases and contact lens, seeks licensing arrangement for manufacture of **contact lenses.** Sells in U.K., EFTA, Common Market areas, Australia, Near and Far East. A. F. Clarke, Marketing Consultant, Int'l. Press Centre, Rm. 411, 76 Shoe Lane, London EC4. P-76694.

3841 — UNITED KINGDOM — Seeks licensing arrangement for manufacture of **non-disposable surgical products.** Items of particular interest are operating tables, instrument tray tables, sphygmomamometers, etc. Established 1919. Operates as manufacturer, distributor, exporter and importer of acoustic products, page winders and show domes. Current annual sales volume $4 million. R. R. Singh, The Power Equipment Co., Ltd., Kingsbury Works, Kingsbury Rd., London NW9 8UU. P-76695.

7011—AUSTRALIA—U.S. investor sought for **50-room island resort hotel** in heart of Australia's Great Barrier Reef. Investment would be approximately $200,000 to complement already committed local capital investment of $400,000. Lionel N. Berck, Chairman and Mng. Dir., Moonbee Village Hotel Pty., Ltd., P.O. Box 503, Mackay, Queensland 4740. Cable: Moonbee Australia. P-76710.

Salvador To Register Firms

Salvador plans to create a Fund for Pre-Investment Feasibility Studies—Fondo Salvadoreno Para Estudios De Pre-Inversion. A register of national and foreign firms and individuals offering consulting services in all areas is being established as part of the Fund. To register, consulting firms should request a form, supplied free, from: Lic. Roberto Chico Duarte, Sub-Secretario, Div. De Proyectos, Ministerio De Planificacion & Coordinacion Del Desarrollo Economico y Social, Casa Presidencial, San Salvador.

Mexico Projects Electric Needs

Mexico's National Chamber of Electrical Manufactures recently completed a study of projected needs of the country's government-owned electric power industry from 1977 to 1984. Equipment projected to be needed is listed by year and unit. A copy, in Spanish, is available for inspection at Room 4031, Mexico/Central America-OIM, U.S. Department of Commerce, Washington, D.C. 20230.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2248), referring to the appropriate file number.

SWITZERLAND — Seeks U.S. firm to manufacture under license line of **commercial tilting pans, kettle and frying pans.** Offered is a closed hermetically-sealed circulation system which is partially filled with water and equipped with electric heating elements to transform water into steam for cooking or frying process. No refill of water is necessary and the system is maintenance free and does not tend toward calcification. Swiss firm claims that system is economical to operate and no burning of food is possible. Firm is large, prosperous and has active exchange of know-how arrangement with major U.S. stove manufacturer. File 3127

SWITZERLAND—Country's largest automatic press manufacturer offers its complete line of **hydraulic fine line blanking presses.** Considered to be among most advanced available for working thick materials. Large number of technical advantages are offered. Maximum available load is 630 metric tons, special off-center applications are possible, pressure can be supplied with automatic feeding attachments, strip removal attachments and devices to remove parts and slugs. Drawings, including all details of presses in question, have been adapted to U.S. specifications and safety regulations and are available for potential licensee. Swiss firm claims they now have over 8,000 automatic fine blanking presses in operation worldwide. File 3128

SWITZERLAND — Medium and heavy duty **spraying gun,** suitable for treatment of agricultural areas of all kinds, is offered to U.S. firms. Consists of powerful air blower, exhaust tube and spraying nozzle installed in tube. Nozzle produces fine mist of treating chemicals, thereby obtaining optimum effectiveness of preparations used. Mist is carried away by airstream of air blower at heights of over 60 meters (approximately 200 feet). Air tube can be aimed at anything horizontally or vertically by operator. File 3129

SWITZERLAND — New system of capturing wireless data. This is a multi-mobile one-line, real-time, wireless data collection and retrieval system consisting of data transmitters, numerical keyboards with display, alphameric keyboards with display, central field station, terminals, bar code read pens, digital magnetic cassette recorders and charging unit. Requests that prospective U.S. licensees should have adequate electronic production facilities as well as sales and service capabilities. File 3130

SWITZERLAND Firm seeks American manufacturers interested in producing under license a novel and highly compact **unit consisting of shower cabinet on one side and on the other a compartment holding toilet, wash basin and swing-door cabinet.** Space-saving unit, which is completely revolving, is especially suitable for use on yachts and other boats, but can also be assembled and installed in four hours anywhere a bathroom is desired and space confined. File 3131

SWITZERLAND — Novel system of saddling heavy cable for laying heavy power cables with diameters exceeding 100 mm in shafts, pipes and other places difficult to obtain access. Producers of cable-laying equipment or firms specializing in cable laying are type of firms the Swiss firm most interested in working with. File 3132

SWITZERLAND — Paint and lacquer manufacturer offers licensing opportunity to manufacture exterior and interior PVA and ACRYL base **wall coating.** Can be applied with towel, roller or sprayer. Coating is light and weather resistant yet insures respiration of surfaces coated. Product has been successfully marketed in Switzerland for over 15 years and enjoys reputation for good quality. File 3133

SWITZERLAND—New patented **stocking and warehousing system.** Unlike others, can be used for combined stocking of long goods (iron rods, bars, etc.), as well as palletized items, cassettes and containers. Basic three elements offered are stocking units, servicing units (mobile lifting system to load and unload racks) and control units featuring mostly solid state electronics. Reportedly, this firm has done considerable research and development in field of advanced warehousing and stocking and is considered to have developed substantial know-how. Has been successful in selling its systems in many European countries, where several licenses have been appointed. File 3134

SWITZERLAND — Established manufacturer of machine tools offers its **gauge-grinding machine,** developed for production of templates, gauges (including snap gauges), and similar items, and also for use in tool rooms. Operation and accuracy (dimensions of work piece, grinding depth, etc.) are controlled by internal micrometer adjusted abutments. Can be installed at work benches and tables. Special accessories available. Especially suited for grinding of complicated gauge shapes. Licensee could, if preferred, purchase such items as drive motor, micrometer, etc., in U.S. Swiss firm specializes in machine tools for specialized purposes, automatic loading and feeding systems as well as tool and die production. File 3135

SWITZERLAND—Leading manufacturer offers licensee arrangements on following **meters:** cold water meters including mechanical counter; Woltman water meters for bores of 50-600 millimeters; hot water meters; oil meters; meters for chemical solutions and process liquids; heatmeters. Also, line of pneumatic, electric and electronic **signal transmitters** for use with general meter line. File 3136

UNITED KINGDOM — Company manufacturing pharmaceuticals seeks U.S. licensee for new **shampoo product.** Said to be effective, safe alternate to selenium sulphide in treatment of Seborrhoea Capitis Oleosa and Seborrhoeic Dermatitis of scalp, with none of side effects often encountered in this treatment. Marketed in United Kingdom under name Synogist. File 3137

UNITED KINGDOM — Small shipyard, established in 1800s, specializing in building workboats about 30 feet long, small tugs about 50 feet long, fishing vessels, yachts, landing craft, working in wood, reinforced steel and plastic, seeks licensing arrangement and/or joint venture with U.S. shipbuilding companies to build vessels to their design and specification in Cornish shipyards for marketing in U.K. and Europe. File 3138

UNITED KINGDOM—Firm specializing in design and manufacture of reproduction exterior **doors,** seeks possible license or joint venture arrangement with American firm. File 3139

UNITED KINGDOM — Small company operating as manufacturer of test rigs, dynamometers, tire test equipment, torque and force transducers, axle test rigs and gear box test rigs seeks U.S. manufacturer to produce and market in United States high accuracy chassis **dynamometer** for exhaust emission and road simulation testing of passenger cars. Claimed to be well proven and fully developed, and highly respected by present users. File 3140

UNITED KINGDOM — Firm manufacturing **ratchet screwdrivers** is interested in licensing arrangement with U.S. firm for manufacture of same. Claims this large, heavy screwdriver is capable of driving screws at greater than normal speed, falling between conventional ratchet screwdriver and more complex spiral ratchet. Speed is achieved by using both hands of double handle and screwing alternately by continuous rotation of blade. Drive is obtained by rollers located between flats on shaft of blade and cylindrical steel bore in handle. When torque is applied a small clearance allows rollers to wedge firmly between flat and bore of handles to provide drive and give solid feel. Four-roller version has withstood ten times British standard heavy-duty torque test. File 3141

UNITED KINGDOM—British firm offers their **hacksaw blades, pipe wrenches, precision machine vices, wood tools, carbon steel tools, pinchers and pliers and tight vices.** Form of arrangement open to discussion. File 3142

New Morocco, Tunisia Policies Will Give Bidders More Time

In separate and unrelated actions, the governments of Morocco and Tunisia have issued administrative circulars to government ministries and agencies which require more reasonable time-frames for receipt of bids on international tenders. American firms have long complained that Moroccan and Tunisian bid deadlines were too short to enable American bidders to receive, translate and analyze specification documents, make a proposal, translate it into French and deliver it to the appropriate North African agency within the specified time. The new regulations should stretch out the period of time acceptable to Moroccan and Tunisian government agencies for the receipt of foreign bids. Thus, American companies will find it more feasible to consider tender documents issued by these two governments.

The Tunisian action results at least partially from discussions at the U.S.-Tunisia Joint Commission meetings in October 1975. In Morocco, American Embassy officials brought the problem to the attention of Moroccan officials on behalf of the U.S. business community.

Additional information is available from the Commerce Action Group for the Near East, U.S. Department of Commerce, Washington, D.C. 20230.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Building construction

• **15200 — NIGERIA** — Federal Livestock Department is seeking bids from firms for supply of wide range of agricultural and housing inputs required to establish several cattle ranches and grazing reserves in northern Nigeria. Interested firms should immediately send bids, including brochures, price lists (c.i.f. preferred), supply situation, etc. to: Project Manager, Livestock Project Unit, Federal Livestock Dept., P.M.B. 2012, Kaduna, Cable: FEDAG Kaduna; Telex: 71153 AGDEV NG. Following items will be required during first yr.: 35 stockholding units or corrals (either prefabricated or heavy wire types); 350 miles of stock fencing similar to Cyclone 5/70/70 and or 7/90/60 with five to seven lines (bids should be made per mile or per km); 10 cattle scales & squeezes; 2500 tons of triple superphosphate fertilizer (price per ton); 30 prefabricated, 3-bedroom managers' houses; 110 prefabricated laborers houses; 30 prefabricated, combination office/storerooms; unspecified quantities of plastic water piping, water troughs, windmills, metal storage tanks, water pumps, electric generators, vaccines, pesticides and herbicides. Firms should be sure to include estimates for sending of instruction teams where needed. These ranches and grazing reserves will be established under World Bank financing and management. Entire project will extend over three to five yrs., with similar supply needs expected each yr.

Men's, youths', boys' suits, coats

2311XXX, 23271XX—EGYPT—2,000 used mens' suits; 3,000 used men's trousers; 3,000 used men's overcoats; all in a variety of colors & sizes. Price quotations requested c.i.f. Alexandria. Above quantities are for trial consignment, to be followed by much larger quantities if transaction proves successful. Reply to—Farid Ragheb Kelada, Mgr., Farid Ragheb Kelada Co., 20 Mustapha Pacha Str., Sidi Gaber, Alexandria. Tel: 45219.

Wood products

• **24210, 24910 — MOROCCO** — Government requests bids for 948 railroad crossties and 25,558 pieces of oak lumber. Call for bids, specifications, price list, sample envelope, and bidding formula may be obtained by writing to Office National Des Chemins De Fer (ONCFM), Monsieur Le Chef Du Service Approvisionnements, Rue Halab, Rabat. Project financed by Morocean National Investment Budget. Bids should be sent to above address with envelope marked "Offre De Prix No. 65135". Correspondence and bid submission should be in French. Deadline date Oct. 7.

Drugs

28330—BRAZIL—Joao Lunardi of Farbom Produtos Quimicos, Ltda., Rua Jose Bento 192, Sao Paulo 01523 (Cable: Farbom) wishes offers on four one-ton shipments of polyvinylprolidone (for blood plasma) and up to five one-kilo air shipments lobeline sulfate, annually. Contact Lunardi directly.

Chemical products

28920, 34830, 34840—PERU—Government entity manufacturing ammunition for Peruvian army wishes to contact U.S. manufacturers or suppliers of trinitrotoluene (TNT) explosive type, fuses for hand grenades, gunpowder, and pistols and revolvers. Write to Crl. M. G. Edgar Farfan Mayorga, Fabrica de Municiones Del Ejercito, Apartado 2129, Lima 100.

Iron & steel products

• **33100—BANGLADESH**—1,100 mt hot rolled steel strips for manufacture of mild steel pipes; 1,320 mt hot rolled steel strips for manufacture of galvanized iron pipes. Tender No. 2312/314; bid deadline Oct. 6. Titas Gas Transmission and Distribution Co., Ltd., Dilkusha Court, 7 Motijheel Commercial Area, Dacca 2. Tender documents available from Embassy of Bangladesh, 2123 California St., NW., Washington, D.C. 20008, at TK 1,000 (about $67.85) per set, not refundable.

• **33100 — IRAQ** — 5,000 seamless, cold drawn, low carbon steel, heat exchange tubes. Size of O.D. 1 inch, 12EWG, minimum wall thickness 20 feet long. Tender No. 10/76; bid deadline Sept. 28. Oil Refineries Administration (ORA), Baghdad. Cable: MASAFI, Baghdad. Specifications available from above address.

• **33100—KOREA**—Supply of steel sheet pile, 40 mm x 125 mm x 11.5 mm x 9 m. Tender No. KFX-760204-PI; bid deadline Sept. 28, Office of Supply, Government of Republic of Korea, Seoul. Specifications available from Iron & Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2438.

• **33100—ALGERIA**—Supply of 400 cable shoes, 2,000 galvanized wire clips, and 600 steel ties. Tender No. 76-01; bid deadline ASAP. SN Metal, P.O. 90, Bejaia. Tender documents available at above address. Correspondence in French.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 365 of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

• 33100—**SINGAPORE** — Supply of steel pipes for transmission and distribution mains for water department. Tender No. WE652321/75; bid deadline Oct. 10. Water Utilities Board, Water Department, Singapore 6. Tender documents available from Finance Department, Public Utilities Board, 1st Floor, City Hall, Singapore 6, with deposit of S$500 (about $205). Project financed by loan from Asian Development Bank.

Iron & steel forgings

• 34600—**THAILAND** — 2,000 wheels for locomotives and rolling stock. Tender No. B19232; bid deadline Oct. 10. State Railway of Thailand, Kasatsuk Bridge, Bangkok. Tender documents available from above address at $2.50 per set.

Fabricated wire products

• 34840—**INDIA**—Supply of 6,000, 38-caliber revolvers with 4- or 5-inch barrel length to government. Closing date of tender Nov. 23. Tenders should be submitted to Supply Wing of Embassy of India, 2536 Mass. Ave., NW., Washington, D.C. 20008. Tender documents available at Embassy of India, 2523 Mass. Ave., NW., Washington, D.C. 20008, at non-refundable cost of $10.

Metalworking machinery

• 35400, 35500, 35700, 36600, 38100, 38200, 38600 — **INDONESIA** — Government invites firms to bid for supply of workshop and training center equipment for East Java Agriculture Credit Project under Asian Development Bank Loan No. 197 8,9(SF). Tender documents, at Rupiah 20,000 (approx. $48.19) per set available from Project Development Office, Directorate General of Cooperatives, Jalan Let.Jend.Haryono M.T., Tromol Pos 384, Jakarta Selatan, and must be obtained prior to submitting offers. Bid deadline Nov. 5. List of equipment required available from Dept. of Commerce, TOP, Rm. 2321, Wash., D.C. 20230; 202-377-2251.

General industrial machinery

3567391—**BOLIVIA** — 500 AKC bars for electric furnace; 100 bar suspension hooks. Bars should be of 17255/AKC material; specific resistance of 1.27 ohms/mm2/m at 1,000 centigrades. Chemical composition—percent c-max. 0.25; perment mn-max. 1.50; percent si-max 2.00; percent cr-23-27; percent ni-18-22; percent fe-remainder portion. ENAF needs above ASAP as it runs risk of stopping operations at Oruro-Vinto smelter refinery, if it runs out of these items. Reply ASAP to—Empresa Nacional de Fundiciones, Ing. Jorge Lema Patino, Casilla 4301, La Paz. Cable ENAF; telex Enabol 3560090 via ITT.

Service industry machinery

• 35890—**GHANA** — Tender for supply, installation and startup of mechanical and electrical equipment for major urban water supply facility. Principal items include water treatment plants, complete with pipes, fittings, and accessories, electric driven centrifugal pumps and laboratory equipment. Ancillary supplies include point-to-point radio communications system, transportation equipment, and mobile engineering workshops. Bid deadline Nov. 15. Specifications and tender documents available for non-refundable fee of 500 DM (approx. $197 U.S.) from Consulting Engineer IGIP, D61 Damstadt, Martin Buberstrasse, 50, West Germany. Tender docs. must be obtained prior to submission of bid. Procurement forms part of 9 million cedis (U.S. $7.8 million) project being financed with West German loan. Ref.: Part III Cape Coast and Sekondi-Takoradi Water Supply Project.

• 35892—**IRELAND**—Electricity Supply Board wishes to receive prices and literature for electro-chlorination plant to be installed at Aghada Generating Station, Cork Harbor. Initial output to be 270 MW. Estuarine cooling water to be used, being 90 percent sea and 10 percent fresh water. Cooling water at rate of 27,000 M3/HR. Chlorine demand on 10 minutes contact basis to be 1.7 to 2.3 MG/Liter. No fixed deadline. Budget offer is for planning and design purposes only. Full specification to be issued next year. Sketch or drawing showing overall dimensions required to house plant should be included with budgetary and price data. Reply to: B. A. P. Langley, Project Department, Electricity Supply Board, Stephen Ct., 18/21 St. Stephen's Green, Dublin 2. Ref.: B/D111/30/P/BAPL.

Electric transmission, distribution equipment

• 36100, 36400, 38200 — **INDIA** — Orissa State Electricity Board requires following items for its Rural Electrification Program, financed by IDA: Aluminum conductors—20 MM2 ACSR WEASEL, 6300 km; 16 MM2 AAC GNAT, 1700 km; 30 MM2 AAC ANT, 1100 km. 3-phase distribution transformers, 11 KV/433/250 volts, 100 KVA, 35 nos.; 63 KVA, 173 nos.; 25 KVA, 575 nos. Insulators with hardware fittings, 11 KV disc (T&C) type 15,000 nos. Energy meters, single phase 2.5 A, 25,800 nos.; single phase 10 A, 16,500 nos.; 3 phase for wire 10 A, 200 nos. Bid deadline Dec. 7. Bid No. IDA/REC/OSEB-1/76. Bidders must procure tender forms from Superintending Engineer, Stores & Purchase, Orissa State Electricity Board, Bhubaneswar 751007, Orissa, for Rs.100 ($11.30), prior to submitting offers.

Electric lighting, wiring equipment

3643057 — **JAPAN** — Appliance type pin connectors (16 pins, 24 pins, etc.). Est. annual purchase $5,000. Small importer/distr. of medical apparatus, interested in importing replacement parts for electronic medical & bio-medical equip. Capital $10,000. Annual sales $500,000. Ref.: Itachibori Br. of Sumitomo Bank, Osaka. Reply to—Kiyoshi Tanaka, Pres., Bio Medica Ltd., Tanaka Bldg., No. 14, 3-Chome, Kyomachibori, Nishi-Ku, Osaka 550. Cable Bio Medica Osaka; tel: 06-443-9666.

Communications equipment

• 36610—**INDIA**—Director General, Posts & Telegraphs, MMD Section, Parliament St., New Delhi, has issued tender No. 8-20/76-MMD for supply of 8 keyboard perforators and 8 automatic transmitters for use with 230V 50 cycle current. Bid deadline Nov. 11. Copy of specifications available from Assistant Director General (Imports), Room 514, P&T Directorate, New Delhi, for 20 rupees (U.S. $2.74).

Consultancy & services

9921XXX — **SWITZERLAND** — Reputable marketing consultant will assist U.S. companies in franchising projects, licensing arrangements, mergers, joint ventures, legal & corporate matters in Switzerland & Europe. Prefina is marketing consultancy of Beat Muller, reputable, active Bern business lawyer. Employs 5. Bank: Swiss Volksbank, or Swiss Bank Corp., 3001 Bern. Reply to—Beat Muller, Pres., Prefina Consultants & Brokers, International Marketing, Schwarztorstrasse 28, Postfach Mattenhof, 3000 Bern. Cable Prefina Bern; tel 031/255125.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Knitting mills, products

2253311, 2253313—**GERMANY**—Women's, misses' dresses & suits, knit. Est. annual sales potential $300,000. Products offered to be of top quality & style. Acts as agent for several French mfrs. of high-fashion ladies' outerwear. Has 3 sub-agents

& sells to about 1,000 medium & high-class ladies' outerwear stores in Germany. Good financial reputation. Reply to — Heinz Nuttelmann, Slevogistr. 18, 2800 Bremen 1. Tel. 0421-341242. Excl. agy.

Synthetic materials

28213XX, 28214XX — SWITZERLAND—Polyethylene & polycarbonate in granules. Chemical technical group of Bally Intl. shoe concern. Good reputation. Sales territory of plastics dept.—Switzerland. Business strongly recommended. Reply to—O. Scherer, Mgr., Bally Ctu, Plastic Dept., 5012 Schoenenwerd. Cable CTU Schoenenwerd; tel 064/40 14 22; telex 68927.

Special industrial machinery

3559589—THAILAND—Staple making machine, fully-automatic, adjustable, producing staples of sizes 24/6; 26/6, B8 & No. 10. Production capacity of 10,000 staples/min. Initial requirement: one complete set. Requests c.i.f. Bangkok prices, catalog & general specs. Buyer is a mfr. of staples. Seeking above equip. for expansion project. Reply to—Michael Hon, Mgr., Thai Wah & Co., Ltd. Part., 236/2 Sathupradit Rd., Bangkok 12. Cable Sinoimpex; Tel. 284-1780.

General industrial machinery

35645XX, 35852XX, 3634396—SWEDEN—Air humidifiers; household & industrial; air purification equipment; household & industrial. Also, heat pumps, single package; heat pumps, split systems with precharged lines; split systems, airconditioning, condensing units. Must be designed to operate on 220v, 50 HZ. Inquirer is small but well-established distributor for some large Swedish importers and agents in air treatment field. Would like to expand its program and is therefore seeking direct contact with U.S. suppliers. According to local credit sources firm meets obligations satisfactorily and is recommended as trade contact. Reply to—Allan Forsberg, ABG Komfort Service AB, Tomtebogatan 35, S-113 38 Stockholm. Tel. 08/34 50 40.

Office, computing, accounting machines

3576041—DENMARK — Bathroom scales. Medium-sized firm estab. 1948. Importer & wholesaler of all types of bathroom accessories. Sales territory: Denmark. Five traveling salesmen. Excl. rep. Reply to E. Demant Sparbo, Mgr., Emil A. Petersens EFTF., 12 Haslegaardsvej, DK-8210 Aarhus V. Tel 06-154488.

Household appliances

3634213 — NEW ZEALAND — Wind up face shaver (requires no electric power or batteries). Wishes to estab. agency arrangement. Write—A. B. Donaldson, Lancaster Enginering Ltd., P.O. Box 10067, 17 Lismore St., Christchurch. Tel. 30745.

3634411—ISRAEL—Parts & accessories for electric housewares & fans to be used in assembling "iceless" coolers for vans, trucks & buses. Est. potential sales of complete product: 1,000 units for 1st yr. Quote f.o.b., Ex-Factory. Estab. 1973. Agent, wholesaler & retailer of locally mfrd. children's furniture & PVC walls, doors, ceilings & floors. Employs 8. Annual sales reportedly IL. 1.5 million (IL. 8.20 equals $1.00). Reply to—Menahem Granit, Mgr., Imfalite Ltd., 20 Nordau St., Tel Aviv. Tel. 04/666198.

Instruments for measurement, analysis and control

38250XX—ITALY — Oscilloscopes, sweep generators. Quotations c.i.f., delivery ASAP. Small agent-distr. of peripheral equip. for computers & electronic components. Has 7 employees, 4 traveling salesmen, 3 reps. Sales operation covers all Italy. Enjoys good reputation. Cable Marco Turolla, Radiel S.p.a., Via Villa Mirabello 6, 20125 Milan. Telex 37497 Escomil; phone 688.75.48.

Air transportation

4511XXX—COLOMBIA—Air transportation, certified carriers. Firm wishes to act as sales representative for passenger and/or cargo airlines not regularly operating to or from Colombia but connecting with lines operating from Colombia and/or offering special chartered flights. Reply to—Enrique Micolta, Mgr., Rodolfo Salcedo Inversiones, Ltda., Apartado Aereo (P.O. Box) 5953, Cali, Valle. Cable: Rosalcedo, tel: 871893.

Consumer goods

9921105—SWITZERLAND — Direct selling specialist with in-depth experience in Swiss and European markets seeks to represent U.S. consumer goods. Will advise U.S. companies seeking to establish sales network in Europe. BA in Economics, University of Lausanne. Former Director General of Dart Industries, Switzerland. Bank ref: Swiss Bank Corp. 1260 Nyon, or Vaud Cantonal Bank, 1000 Lausanne. Trade ref: Dr. G. Schwaar, President, Dart Industries Switzerland, Rue Chs. Monnard 1, 1000 Lausanne. Reply to—Pierre-Roland Schwarz, 1171 Fechy. Tel. 021/76 56 91.

OECD Publishes New Study On Government Purchasing

The Organization for Economic Cooperation and Development (OECD) has just published "Government Purchasing—Regulations and Procedures of OECD Member Countries".

The OECD Trade Committee has for several years been studying the regulations, procedures and practices of member countries in the field of government purchasing of supplies. This publication is based on the Committee's work. Its aim is to provide information regarding administrative and technical regulations likely to hamper international trade with a view to contributing, in particular, to the search for making government purchases more open to international competition.

This 130-page publication may be obtained for $7 from OECD Publications Center, Suite 1207, 1750 Penn. Ave. NW., Washington, D.C. 20006.

Electronic Watch Symposium Will Be Held In Monte Carlo

An International Electronic Watch Symposium will be held in Monte Carlo Nov. 17-18. Three major subjects will be covered: the evolution of the electronic watch, and its impact on the traditional watch industry and on the world market; the principle of the electronic watch, including the choices of displays and components; and production.

Address inquiries to Symposium International de la Montre Electronique, C/O Jeune Chambre Economique de Monaco. 33 Rue de Portier, Monte Carlo.

Future Construction Abroad

UNITED ARAB EMIRATES—Sewerage Projects Committee of Government of Abu Dhabi has issued a call for tenders from experienced contractors for temporary erection and testing at contractor's works, conveyance to site and re-erection of **pumping equipment and associated plant, together with standby generation plant for three pumping stations.** Tender documents may be purchased from either Sewerage Projects Committee, P.O. Box 3487, Fayed Building, Hamdan St., Abu Dhabi, UAE (for 2000 dirhams—one dirham equals approximately $0.25); or John Taylor and Sons, Artillery House, Artillery Row, London SW 1 (for 300 pounds sterling). For purpose of identifying correct documents, this is Sewerage Committee Contract No. 108. Closing date for bidding is Nov. 1. For further information contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230, 202-377-4441. Also, please send copy of correspondence to Pete Zantal.

ALGERIA—State Railways Corporation has invited tenders for construction of a second **railway** in Eastern Algeria between Constantine and Ramdane Djamel and between El Guourzi and El Khroub. Project will include all construction, earth excavation, building of one low bridge, three tunnels, construction of ballast, building, railway stations and houses, installation of railway and signalling system. Tender documents available from: Monseiur l'Ingenieur, Chef du Service de la Voie et des Baltiments, Bureau Travaux-Marches, SNTF, 21-23 Blvd. Mohamed V, Algiers. Closing date for bids Oct. 26. All correspondence must be in French. For further information contact Pete Zantal, 202-377-4441. Also, please send copy of all correspondence to Pete Zantal.

MALAYSIA — Following two **highway projects** may be of interest to construction firms and suppliers: 1) During Third Malaysia Plan period (1976-1980), pilot road maintenance programs will be carried out in States of Kelantan, Johor, Perak and Sabah. M$45 million is provided under Third Malaysia Plan for this purpose. Kampsax International, a Danish firm, has been asked by the government to carry out studies on road maintenance program in Sabah and pilot road maintenance program in Peninsula Malaysia. Contact is D. Inderjit Singh, Dir. (Roads), Ministry of Works & Utilities, Jalan Tun Ismail, Kuala Lumpur. 2) Design for the 50 miles of Federal Route I to the north and south of Ipoh was conducted by Valentin, Laurie and Davis, Australian firm. Tenders for construction works scheduled to be issued in mid-1977. Segments which will be constructed, improved and upgraded are Ipoh/Chankat Jering Road (39 miles) and stretch between Ipoh and Bidor (40 miles). Contacts are Zaidan bin Haji Othman and D. Inderjit Singh, Ministry of Works and Utilities, address above. OPIC.

IVORY COAST — Several **railway proj-**

ects are under way, including major improvement in right of way of Regie Abidjan-Niger between Abidjan and Ouagadougou, and possible 350-km.-line between San Pedro and Man primarily intended to carry iron ore pellets mined and processed at Mt. Klahoyo facility now under construction. Ivory Coast imported about $5 million worth of railway equipment in 1975. Report from the American Embassy in Abidjan on current projects on Ivory Coast railway system is available from U.S. Dept. of Commerce, TOP, Rm 2321, Wash., D.C. 20230, 202-377-2251. OPIC.

EGYPT—Port of Alexandria has ambitious **port development program** and appears to offer ample opportunities for U.S. firms. Wide variety of products ranging from communications to materials handling equipment is required. Port officials indicate that a major dredging contract will be offered in immediate future to deepen and widen the harbor entrance. Alexandria Port Authority has announced successful arrangements for loans for port developments as follows: Part of a $45 million IBRD loan to be used for port entrance dredging contracts and dredging along existing quays to a depth of 15 meters for berthing 60,000 ton bulk carriers. $30 million AID Loan for purchase of mobile cranes, trailers, trucks, fork lifts and tug boats to be supplied within period of 2 yrs. $20 million Japanese loan to purchase 6 tugboats (2000 HP), 3 pilot boats, 8 general service boats, and 2 mobile cranes and grabs. Present capacity of port is 10 million tons expected to reach 16 million tons by 1980. $55 million (local currency) will pay for customs duties and purchase of material and equipment on local market. Following are some of the new mechanical and electrical projects for the Port: Install harbour control radar to insure safety and increase facilities for ships entering and leaving the port day and night. Project, under preparation, includes: Installation of a new visual day and night mast at El-Kamaria Signal Station near port entrance. Installation of harbour central radar of modern design using large size PPI screen. Installation of a VHF R/T set for communication with Alexandria Harbour Radio VHF Station for communications with incoming and outgoing ships. Necessary to increase depth of Great Pass from 10.6 m. to about 15 m. and width from 180 m. to 300 m. in order that largest ships can enter easily in all weather conditions. Port of Alexandria urgently requires experimental laboratory for coastal erosion including tanks and equipment to carry out experiments on small scale models of breakwaters, groynes, etc. Also required for experimenting with ship models. Pontoons will be required for salvage of ships sunken in harbour entrance and passes. Mooring ship required to replace obsolescent light and mooring buoys in harbour and channels. Machine tools needed to replace obsolete equipment. Alexandria Port Authority, 106 Ave. El-Horreya, Alexandria. OPIC.

UNITED ARAB EMIRATES — Ministry of Electricity and Water has invited bids for following works: Tender No. E11/76—33 Kv **primary distribution system** development for east and west coast areas of northern Emirates, including supply and installation of 33 Kv transmission lines, transformers, switchgears, high voltage and low voltage distribution system, etc., and all civil works. Only firms with experience in engineering similar projects should apply. Applications for tender documents can be made to Ministry of Electricity and Water, P.O. Box 1672, Dubai, UAE, or Embassy of UAE, London. If documents are obtained from Ministry, payment of DH. 2500 (1US$ equals 3.92 DH.) should be made. If file is obtained from UAE Embassy, payment of 300 pounds sterling should accompany request. Tender documents will be available until Oct. 5. Closing date for submittal of tenders Oct. 24. For further information contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230, 202-377-4441. Also, please send copy of correspondence to Pete Zantal.

EL SALVADOR—Water Supply Agency, ANDA, is contracting, under its North Zone Project for furnishing of water to metropolitan San Salvador, for design, supply of materials and construction of 10 **reinforced concrete storage tanks.** Contract will be on turnkey basis, and materials will have to conform to A.W.W.A. standards. Work to begin Jan. 17, 1977, and terminate March 1978. Bid provides good opportunity for U.S. firm to engage in joint venture with local contractor. Project partially financed with IBRD Loan Contract No. 426/SF-ES. Instructions to bidders in Spanish available from Dept. of Commerce, TOP, Rm. 2321, Wash., D.C. 20230; 202-377-2251. Conditions of contract, technical tender specs., list of quantities and plans available to interested bidders for 150 colones, equal to $60, from Ofician Del Proyecto Zona Norte (ANDA), Boulevard Del Hipodromo No. 609, Colonia San Benito, San Salvador. However, ANDA does not mail these to the U.S. or other countries. Refer to Licitacion No. IM I/76. Bid deadline Oct. 18.

INDIA—Gujarat State Fertilizer Co. Ltd. (GSFC), Fertilizer Nagar, District Baroda 391 750, Gujarat, manufacturer of fertilizers, caprolactum, oleum, ammonia, pesticides and other chemicals, is planning to expand its present manufacturing capabilities and to diversify into other chemical and petrochemical fields, as follows: **Caprolactum Plant Expansion:** Expansion of existing caprolactum plant from 20,000 to 40,000 metric tons a year is under consideration. Estimated cost $72 million. No information available on choice of contractors, if any. **Nylon Chip Plant:** This scheme for producing 4,000 metric tons of nylon chips and molding powder has been cleared by the Indian Gov't. Project to cost estimated $14.4 million, expected to be completed within 30 months from date construction starts. GSFC, however, has not made final arrangements for foreign exchange financing. **Melamine Plant:** Project envisages production of 5,000 metric tons of melamine powder a yr., and will cost approx. $12 million. **SAN & ABS Projects:** Based on technology developed by its Research & Development Div., GSFC plans to establish plants to manufacture 500 metric tons of styrene acrylontrile (SAN) and 4,000 metric tons of acrylontrile butadine-styrene (ABS) a yr. However, before undertaking commercial production, GSFC will monitor operational feasibility of its pilot plant. **Fertilizer Plant:** Second fertilizer plant GSFC is sponsoring, to be located in Gujarat State, and proposed to have capacity of 1,350 metric tons of ammonia and 1,600 metric tons urea a day. Feedstock to be used will probably be fuel oil. Estimated outlay $260 million. **Purge Gas Recovery Project:** GSFC is planning to establish a gas recovery plant at its existing complex at estimated cost of $14.4 million. It has entered into technology and supply agreement with unidentified West German firm, and World Bank financing is likely to become available for purchase of imported equipment. **Production Streamlining Program:** To improve productivity and remove production bottlenecks, GSFC has drawn plan to add balancing equipment to its existing phosphoric acid plant (est. outlay $1.2 million), fluorine recovery project ($1.2 million), caprolactum plant ($3.6-$5 million). Interested U.S. suppliers of chemical equipment and engineering services should contact M. D. Rajpal, Managing Dir., GSFC, address above, Cable: FERTILIZER; Telex: GSFC-BRD-017-211. OPIC.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance to U.S. construction firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's construction insurance program, write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-1854.

ALGERIA—Bidders are sought for construction of **turnkey plant to manufacture electric batteries** of various sizes. Plant capacity breakdown is 90,000,000 batteries for home use, 400,000 for specialized use and 240,000,000 zinc inserts. Offers must be 10 copies in French, include training of personnel and technical assistance, and should be sent no later than Dec. 25, via registered mail, to Directeur des Projects, SONELEC, 12 Blvd. Nacira Nounou, Belcourt. Interested firms should indicate to same address, before deadline, the intent to submit offer. All specs metric, correspondence in French required. Tender documents may be available from Department of Commerce. Firms should contact Andras F. Behr, BIC/CAGNE, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4441.

LIBYA—Tenders are invited for supply, transport and installation of **500 housing units** throughout Libya. SIC 34482. Tender is indivisible and must be presented by local agent. Will be financed by government through Libyan commercial bank. Specifications available from School Buildings Administration, Bashir Assaadawi St., Tripoli, upon payment of DL 20 (US $70). Offers must be accompanied by initial guarantee of DL 15,000 (US $51,000) and should be submitted to Minister of Treasury, Central Tender Committee, Shara Shatt, Tripoli. Deadline is Aug. 30; attempts are being made to extend it. Interested firms are also advised to contact Andras F. Behr, 202-377-4441.

SAUDI ARABIA—Bottling plant expansion. The Seven-Up Bottling Plant of Saudi Arabia (P.O. Box 660, Jiddah) plans to increase its output from current 7,000 cases per day to at least 40,000 cases per day. Plant manager Fouad Rizak believes this will require an entire new plant. Owner Sheikh Kamal Adham desires to have U.S. firm design complete plant, including all internal work such as flow patterns, choice of equipment,

concentrating on automated labor-saving machinery as well as establishing guidelines for personnel management. Latter will include designation of skills and functions, including wage and salary scales. U.S. firm will also be required to organize sales and distribution methods and studies of raw materials requirements. Firm has 150 x 200 meter lot ready for construction and anticipates spending at least $10 million on project. Interested firms contact Fouad Rizak at above address, cable: SEVENUP JIDDAH. Firms are also requested to contact Andras F. Behr, 202-377-4441.

IRAN — International prequalification tender has been issued by Iran Japan Tourism Co. for construction of luxurious 700-room, 25-story, steel structure **hotel** in Tehran, designed by Kenzo Tange. Prequalification questionnaire may be obtained Sept. 15-22 from IJTC office, second floor, Construction Bank Bldg., 164 Elizabeth Blvd., telex: IMDBIR 212816. Completed questionnaire should be returned to IJTC office by Oct. 17. Additional information available from Andras F. Behr, BIC/CAGNE, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4441. OPIC.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

SAUDI ARABIA—Ministry of Municipalities and Rural Affairs will soon invite selected number of design engineering firms to submit proposals for complete **solid waste disposal program** for municipality of Jiddah. Invitations will be issued based on prequalification documents on file at Ministry. Value of design contract could be as high as $15 million. Overall project expected to total $125-$200 million. Additional information and prequalification data available from Andras F. Behr, 202-377-4441.

ALGERIA—Foreign State Corporation tender has been issued for construction and full equipping of **nine complete cattle feed lots,** starting capacity of each 2,000 head per year. French tender documents and blueprints cost DA 100.00 (approx. US $24) and are obtainable from ONAB, 26 Blvd. Zirout Youcef, Algiers, cable: ONAB ALGER, telex: 52913. Offers should be sent no later than Nov. 30, by registered mail to same address. Offers should include technical literature in French, references describing similar past experience, info on technical assistance and training of personnel and should remain valid 90 days past deadline. Offer and correspondence in French required, all specs metric. Tender documents and additional information also available from Andras F. Behr, 202-377-4441.

ALGERIA—Silo construction, update of previous announcements. Construction on 41 different sites of unknown number of silos totalling 3,000,000 metric tons of capacity. Deadline for all phases of this project has been extended to Oct. 30. For additional information contact Andras F. Behr, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4441.

TUNISIA—Government has issued international tender for supply of **water purification facilities** in Sousse North (lot 3B) and Djerba Zarzis (lot 5B) and portable water distribution system for Djerba Zarzis (lot 5A). All above are major tourist areas. Tender docs and specs may be purchased for DT 30 (US $70.50) for each of above projects from ONAS, 8 Rue de Senegal, Tunis, with payment by check drawn on Tunisian bank or by bank transfer in name of Monsieur le Directeur de l'Office National de Tourisme. Deadlines: Lot 5A—Oct. 20; Lots 3B and 5B— Dec. 15. For additional information and detailed instructions on bidding procedure, contact Andras F. Behr, BIC/CAGNE, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4441. OPIC.

ALGERIA—Prequalifiers sought for design and construction of **3,000 houses** on different sites. No tender document issued. To obtain tender information, U.S. firms should write no later than Oct. 4 to Sous Direction des Finances et de l'Equipment, Bureau des Marches et des Subsistances, Directon Generale de la Surete Nationale, Chemin Gadouche Abdel Kader, Hydra, Algiers. Correspondence should include references describing past experience and background. Offer to remain valid 90 days past deadline. Offer and correspondence in French required, all specs metric. Interested firms also requested to contact Andras F. Behr, 202-377-4441.

EGYPT—Egyptian FAO official with Oman Ministry of Agriculture plans to set up small **fish packaging plant** in Egypt. Plant would process and package five tons of dried fish per day. Location planned either on Lake Nasser or Red Sea. Financing assured. American firms interested in supplying machinery write directly to Dr. Ahmed el-Morshidy, Ministry of Agriculture, Fisheries, Petroleum and Minerals, P.O. Box 1425, Sultanate of Oman. Firms also requested to contact Andras F. Behr, 202-377-4441. OPIC.

SYRIA — Prequalifications invited for **studies of water, regional and particular urban studies.** First studies to be executed will be city center of Homs (population 300,000). Applications must be submitted in envelope entitled "application for prequalification, city and regional planning" and accompanied by documents testifying to firms experience. Firms with experience in planning cities (especially Arab ones) between 100,000 and one million inhabitants preferred. One month after deadline Ministry shall invite six qualified firms to submit within two months detailed proposal for master plan and city center of Homs. Final consulting service contract shall be awarded within five months of initial Sept. 16 deadline. For further information, contact soonest Ministry of Housing and Utilities, Department of City and Regional Planning, Azmeh Sq., Damascus. Interested firms are also requested to contact Andras F. Behr, 202-377-4441.

MALAYSIA—Power VIII Project—Construction of **thermal power station** at Pasir Gudang with two 120 MW units. Estimated cost U.S. $30 million. Consultant work was awarded to TATA, Indian firm. Tenders for construction works will probably not be issued until late 1976. Contact A. Ramanath, Deputy General Manager, (Planning & Construction), National Electricity Board, P.O. Box 1003, Kuala Lumpur. OPIC.

Visiting Buyers & Officials

ISRAEL — Joseph Giveon, Dir., Giveon Agencies, Ltd., 105 Hahashmonaim St., Tel Aviv, seeks agency representation with manufacturers of **semiconductor devices** such as integrated circuits, transistors, diodes and rectifiers. Giveon plans to visit Los Angeles, Sept. 15-18; Chicago, Sept. 29-Oct. 1; New York, Oct. 4-6. He may be contacted through Betty Patrick, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

AUSTRALIA — G. Dwyer, Manager, Dwyer's Interiors, 40 Belmore Rd., Randwick, New South Wales, 2031, is interested in purchasing **lamp bases** and both modern and reproduction **home furnishing accessories.** He may be contacted through Betty Patrick, 202-377-3265.

ECUADOR—Jose F. Medina, P.O. Box 3732, Guayaquil, poultry supply house operator, is interested in contacting suppliers of **poultry automatic feeders and waterers** (60 cycle 110/220 volt AC available). Purchase potential will depend upon attractiveness of price quotations. Medina may be contacted through Betty Patrick, 202-377-3265.

NIGERIA — M. A. Omesade, M. A. Omesade and Co., Unity House, 37 Marina, P.O. Box 4256, Lagos, is interested in hearing from suppliers of **auto spare parts, particularly for AMC vehicles.** He

also wants contacts with large U.S. **maintenance firms** as well as suppliers of **agricultural equipment, i.e., tractors, storage silos, refrigeration equipment,** etc. Omesade is also interested in **credit card organizations** such as Diners Club or Carte Blanche. He may be contacted directly or through Terry Rettig, 202-377-3265.

VENEZUELA—Messrs. A. A. Takkas and E. W. Filmer, representing Petroven, a Government of Venezuela holding company for its nationalized petroleum industry, want to hear from manufacturers or suppliers of **message switching computers and telephone exchange equipment** to be used to extend the teletype configuration for Petroven in Venezuela. Brochures and other information may be sent through Terry Rettig, 202-377-3265.

CHILE—Miguel Rogers-Martinez, official of the Chilean Ministry of Housing, wants to hear from U.S. manufacturers of **prefab housing and related machinery for assembling houses.** Brochures and related information may be forwarded through Terry Rettig, 202-377-3265.

BELGIUM—Roger Roosbeek, International Tyres Belgium, Roger Roosbeek and Co., Melkerijstraat 1, B-3434, Neerhespen, is interested in contacting suppliers of **batteries and motor oil** for passenger cars and trucks and **tires** for passenger cars. He may be contacted through Betty Patrick, 202-377-3265.

AUSTRALIA—Dr. B. J. Amos, Project Planning Officer, Westmead Hospital Project, N.S.W., Sydney, will visit the United States to purchase **nurse call systems, patient monitoring systems, and other systems for improving hospital efficiency.** Amos will arrive San Francisco Sept. 14, and attend American Hospital Association Convention in Dallas, Sept. 20-23. He will visit Cleveland after the show. Westmead, the largest hospital project in New South Wales, will cost over $200 million. Amos may be contacted through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

PAKISTAN — Gulzar Ahmad Khan, Director, and S. M. Zafar, Legal Advisor, G.M.G. Tanneries Ltd. and United Art Leather Ltd., 88-B-3 Gulberg III, Lahore, will be visiting the United States this month to purchase **leather tanning machinery and equipment** for two plants. They want tanning equipment, 500 hides per 8-hour shift, and artificial leather for coating of PVC pastes, direct or transfer coating system, working width 1,800 mm., normal width 2,000 mm., production speed variable between 2 to 30 meters per minute. They are willing to sign agreement for prompt supply. These firms tan leather and manufacture artificial leather, rexine, and PVC. Involvement in coating and laminating has been proposed. These buyers will visit New York, Detroit, Atlanta and Disney World. They speak English. They have budgeted $538,-700 for tanning machinery and $454,200 for artificial leather machinery. They have Government of Pakistan sanction for foreign exchange. Contact them directly or through Bill Corfitzen, 202-377-2068.

INDIA—G. Khandwala, Vice Chairman, and D. J. Madan, Mng. Dir., Gokak Mills, Div. of Gokbe Patel Volkart Ltd., Forbes Bldg., Charanjit Rai Marg Home St., Bombay 400001, will visit the United States Oct. 1-8 to meet with textile machinery manufacturers and to purchase **technology for manufacture of non-woven fabrics, industrial fabrics, transfer printing, and terry toweling.** Visitors would also like to see plants producing these items. Gokak is a leading textile mill planning diversifications of its product line. Visitors' itinerary precludes visiting ATME exhibit, Greenville, S.C., Oct. 21-29. Bill Corfitzen, 202-377-2068.

AUSTRALIA—M. C. Jones, Manager, Isis Trading Co., Guildford, N.S.W. 2161, will visit the United States in October to buy **home improvement handyman kits, outdoor metal or plastic furniture in knock-down packs, garden tools, and garden accessories.** He will arrive Miami on Oct. 21 for a ten-day visit that will include Chicago, St. Louis and lower West Coast. Contact Bill Corfitzen, 202-377-2068.

GERMANY — Borries J. Broszio, Mng. Dir., Broszio and Co., 2 Hamburg 19, seeks American suppliers of new **do-it-yourself products** of all types for sale and distribution in Germany. Broszio will visit the United States in January 1977. Bill Corfitzen, 202-377-2068.

AUSTRALIA—F. Harvey will visit the United States in October to locate U.S. suppliers of **bed sheets and pillowcases.** He will arrive Los Angeles Oct. 13 and San Francisco Oct. 18. He may be contacted through Bill Corfitzen, 202-377-2068.

AUSTRALIA—Peter Harris, Mng. Dir., ASHCO Pty., Ltd., 70 Parramatta Rd., Stanmore, New South Wales 2048, is interested in hearing from manufacturers of **accessories to fit traditional furniture.** His primary interests are tables, lamps, and mirrors. He may be contacted directly or through Theresa Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

ECUADOR—Gonzalo E. Jacome, Proprietor of Importaciones Y Manufacturas Plastex, P.O. Box 5998, Guayaquil, a variety store, is interested in hearing from suppliers of **costume jewelry, notions, and blue jean fabric.** Jacome planned to arrive in the United States Aug. 29 for a 3-week visit. His U.S. contact address is c/o Mrs. Ella Lecca, 401 Eldert Lane, New York, N.Y. 11208, 212-827-8257. Betty Patrick, 202-377-3265.

COSTA RICA—Carlos Alfaro Suarez of San Jose is interested in purchasing **machinery for manufacture of wheelbarrows.** He may be contacted through Theresa Rettig, 202-377-3265.

SWITZERLAND—Mr. Baumann, Manager of one outlet in a Swiss food chain that supplies institutional food service organizations, restaurants, hotels, and schools, will visit the United States Sept. 15-30 to study **food merchandising methods,** particularly receipt and shelving of stock, point-of-sale operations, cashier operations, and systems for food delivery from outlet to institutional customers. Buyer would like to contact American manufacturers of the latest supermarket equipment, trade associations, wholesale food distributors, and supermarkets to observe housewife/consumer operations. Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

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Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

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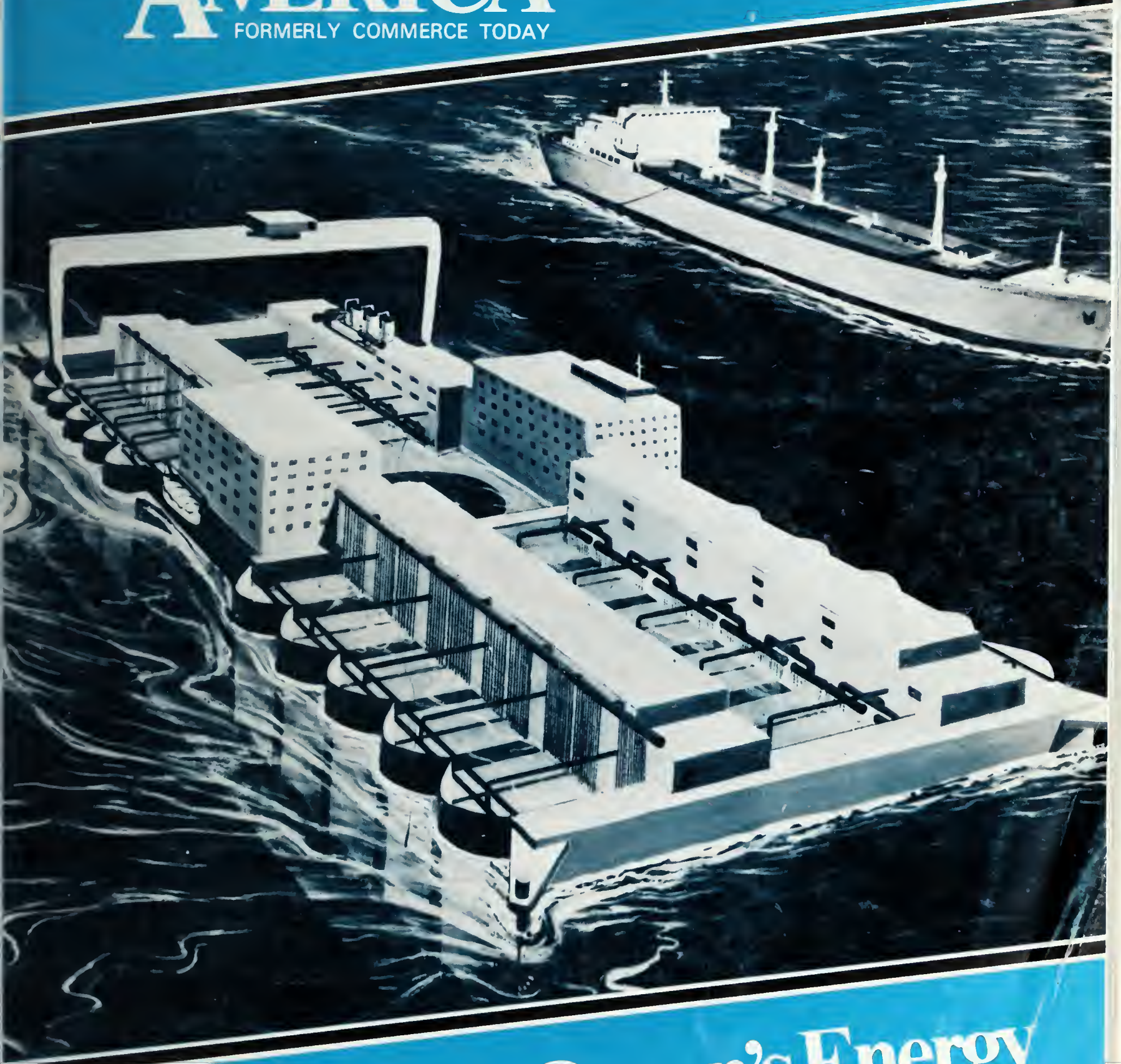
COMMERCE AMERICA

FORMERLY COMMERCE TODAY

U.S. Department of Commerce / September 27, 1976



Harvesting The Ocean's Energy

Newsmemo

Removing lead from gasoline can pit the interest of motorists against that of U.S. petrochemical workers. Phasedown in use of tetraethyl lead, per Environmental Protection Agency requirements, can result in major gasoline shortages next year. Removal of lead can be partially compensated by increased use of aromatics, including benzene, toluene and xylenes. But the latter are essential raw materials for plastics, rubbers, synthetic fibers, coatings and other petrochemical products. Aromatics are being produced at full capacity rates. Any increased supply to refineries would be diverted from petrochemical stocks. "Drastic implications," respond the petrochemical producers; a 20 percent diversion would mean a loss of 60,000 jobs, they say.

U.S. expenditures for research and development are expected to total $38.1 billion this year. This is 8 percent over last year's figure, according to the compiling National Science Foundation. Federal outlays for R & D are expected to reach $20.1 billion, and industry will spend about $16.6 billion. The remainder will be spent by colleges or non-profit institutions. Most of the increase in federal expenditures is in the defense, space and energy areas.

Exports continue as a stabilizing factor in the aerospace industry. Production employees there totaled 310,000 at the end of 1975, 45 percent below the 1968 peak of 560,000. Of the 1975 total, 169,000 or 56 percent were involved in manufacturing for export, as compared with 119,900 in 1968. This year the total of production employees is expected to fall 4 percent to 298,000, of which export production is again expected to employ 169,000. In each of the past ten years the U.S. aerospace industry has become increasingly dependent on foreign sales.

Techniques learned in current Medicaid fraud investigations will be useful in uncovering problems in other medical payment programs. A Senate subcommittee has already reported evidence of Medicaid payment irregularities. The Department of Health, Education and Welfare has launched a national campaign to uncover fraudulent activities in Medicaid, such as fee splitting, duplicate billing, and illegal drug substitution. Principal investigation targets are pharmacies, physicians, and nursing homes. Nearly 200 HEW investigators will dovetail their work with that of the Internal Revenue Service and the Department of Justice. What they discover will be applied to current third party payment plans, such as Medicare, or the proposed National Health Insurance program.

A barrel saved is as useful as a barrel produced—better in many respects. This is a comment from the first report issued by the OECD's International Energy Agency, which asks for stronger energy conservation drives in 19 industrialized nations—U.S., Canada, Japan, New Zealand, and 15 European countries. Though noting some accomplishments, the agency comments: "It is clear that most countries are not approaching energy conservation with the same intensity and applied to energy supply expansion. This is unfortunate, for there is no fundamental difference between the results of each approach."

Imports and exports, how do they move within the U.S. domestic transportation system? The Census Bureau has just begun a survey to find out, and will link the data obtained with that already available on the international movement of goods as collected in customs documents. The new survey is considerably more intensive than one made in 1970. New figures are important because of the increased use of containerization and shipper demands for information on door-to-door movements with through-bills of lading. Shippers, port officials, carriers and government officials will be aided in their cargo forecasting, analysis of trade patterns and port tributary areas, and measurement of modal distribution.

Matchmaking between export marketing firms and producers interested in markets abroad continues. A recent conference in New York put hundreds of such firms in contact with each other, to increase export sales. Now Chicago will be the scene Oct. 30-Nov. 1 of a second such event. Co-sponsors are the Commerce Department's District Office, the State of Illinois, Chicago Association of Commerce & Industry, Overseas Sales & Marketing Association, and the Illinois District Export Council.

COMMERCE AMERICA
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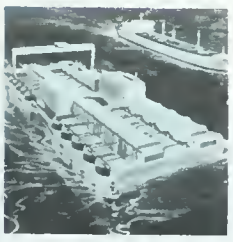

COVER: A decade hence, a fleet of 21 factory ships like that shown in this artist's sketch could be producing 40 percent of the nation's ammonia requirements, converting thermal energy into electricity and extracting metals from the sea, according to a feasibility study conducted for Commerce's Maritime Administration. Details begin on page 4.

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Shifts In Quarterly Projections Indicate Faster Investment Pace

This column is written by John W. Kendrick, Commerce Chief Economist, in collaboration with staff economist George Donald Hanrahan.

John W. Kendrick

The most recent Department of Commerce survey of business plant and expenditures shows a significant shift in the quarterly pattern of investment for the year, even though the 1976 year-to-year change is reported to be about the same as in the April-May survey. The shift implies a faster pace of business investment expansion and suggests that the overdue upswing in capital spending is now under way.

Business investment in new plant and equipment this year is expected to show an increase of 7.4 percent over 1975, but the annual rate of growth from the second quarter to the fourth quarter, as calculated from the new data, is 15.6 percent. The survey reported that the increase in actual expenditures in the second quarter was $3 billion lower, on an annual rate basis, than previously estimated, and anticipated spending in the third quarter was at the same level as in the April-May survey. However, the estimate for the fourth quarter was raised by $2.6 billion.

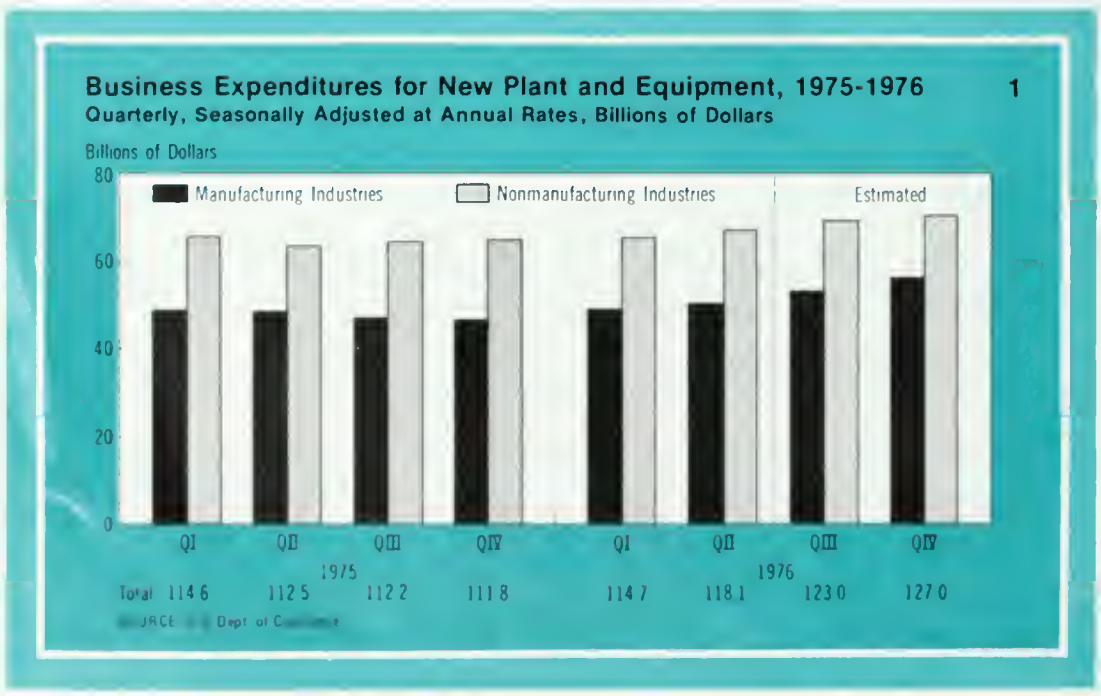
Plant and equipment expenditures constitute roughly two-thirds of the nonresidential fixed investment component of the Gross National Product (GNP). The price deflator for the latter group of expenditures, therefore, tends to reflect the price movement of plant and equipment. In the first half of this year, the implicit GNP deflator for nonresidential fixed investment indicated a 4.5 percent annual rate of inflation. If this inflation rate is applied to the survey's current dollar expansion rate for plant and equipment expenditures for the latter half of 1976, the result is an increase in excess of 5 percent in real terms, or nearly 11 percent at an annual rate. This development suggests a very favorable short-run outlook for investment compared to its recent performance and would provide a growth impetus to the Gross National Product. For the long run, investment pickup is essential for providing ample capacity to sustain satisfactory growth and a full employment economy.

The $118.1 billion level of actual business plant and equipment expenditures in the second quarter stood only $3.5 billion above the level of last year's first quarter, which was the trough of the recession. In the interim, as the economy was recovering, plant and equipment spending even contracted slightly until the first quarter of this year. The contraction was somewhat more in manufacturing than in nonmanufacturing. Allowing for inflation, the second quarter level was probably about 2 percent below the level of the first quarter 1975.

The lagging behavior of business plant and equipment investment during the early recovery stage of the economy is characteristic. However, business investment in this recovery and expansion has been especially sluggish. Consequently, the shift in the pattern of plant and equipment spending indicated in the recent survey is encouraging in that a sustained rise in capital spending appears in the offing.

Several key indicators related to capital investment have exhibited substantial strength in recent months. The Conference Board, a private economic research organization, reported that capital appropriations by 1,000 large firms in the second quarter were up 13 percent over the first quarter. Manufacturers' orders for nondefense capital goods in May, June, and July were up 11.5 percent over the previous three months, and the increase of 13.2 percent for July alone was a record monthly rise. A more comprehensive indicator, contracts and orders for plant and equipment, expressed in constant dollars, was up 6.5 percent in the latest three-month period, May-July, compared with the three prior months. Production of business equipment, as measured in the Federal Reserve's industrial index, showed an increase of 1.4 percent in the June-August period over the prior three months. Thus, the leading indicators, such as appropriations and orders, show a much stronger pattern in recent months than the indicators of current production.

The anticipated increase in plant and equipment expenditures from the second to the fourth quarters this year, as reflected in the Department of Commerce survey, is primarily in manufacturing, as the table indicates. Investment in the durable and nondurable goods industries is expected to expand at about the same rate. On the basis of the survey data, the table ranks the major industries by



their intended capital expansion rates over the second half of the year. The planned expansion of investment in the paper industry is particularly rapid, and the expansion rates for the machinery, transportation equipment, petroleum, and chemical industries are strong. Aside from the rubber industry, the contraction in investment is concentrated in the transportation sector of the economy. The industries near the top of the ranking have been experiencing high utilization rates of their productive capacity.

Plant and equipment investment typically responds to changes in corporate cash flow. The significant increases of corporate profits over the five quarters since the trough of the recession, which occurred in the first quarter last year, have contributed greatly to the swell in cash flow and thus provided a favorable environment supporting investment. In this recovery, cash flow advanced 34 percent in the five quarters from the trough quarter, but business plant and equipment expenditures increased only 3 percent in that period. This response appears quite abnormal in comparison to prior recoveries, in which the expenditures for plant and equipment usually expanded about half as fast as the cash flow, as indicated in the comparative analysis presented in Chart 2.

But cash flow, although it is a primary influence on investment, is only one of several determinants. The capacity utilization rate is another explanatory factor. When sustained sales demand pressure is exerted on production facilities, investment plans are stimulated. Although the Federal Reserve Board's capacity utilization rate estimates used in this analysis are presently being revised to correct the levels, the percentage changes are useful for comparative analysis. The low capacity utilization rate experienced in this recovery relative to the past served apparently to retard the investment thrust. Business investment decisions have likewise been affected by negative attitudes ranging from a concern about the fluctuations in consumer confidence to the outright fear connected with the visualization of a highly reflated economy if spending became too vigorous.

Two additional factors entering investment decisions are the ratio of changes in the labor cost to the capital cost and the long-term rate of interest. The corporate bond rate fell somewhat after the trough of the recession, and again since May, and availability of long-term funds has generally been favorable.

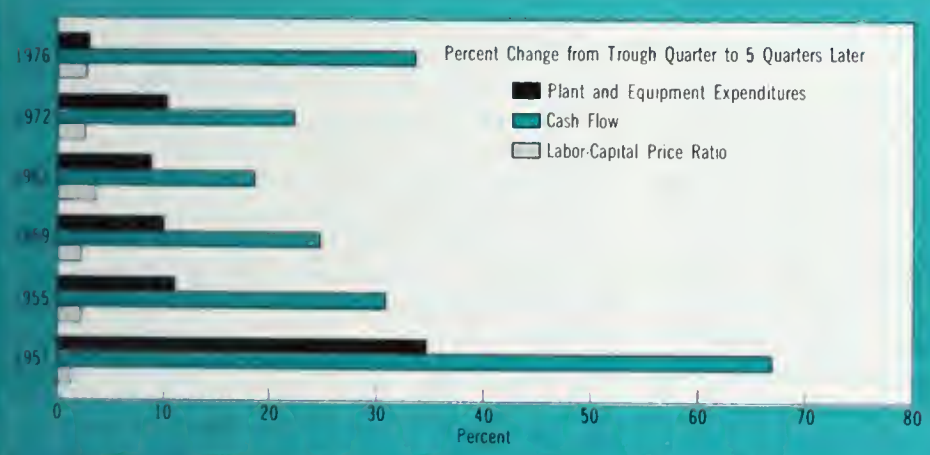
Expenditures for New Plant and Equipment by U.S. Business Quarterly, Seasonally Adjusted

Estimated Percent Change from Second Quarter to Fourth Quarter 1976	
All industries	7.5%
Manufacturing	11.2
Durable	10.0
Nondurable	12.1
Nonmanufacturing	4.8
Individual industries	
Paper	29.6
Machinery except electrical	17.2
Transportation equipment	16.7
Electrical machinery	16.1
Petroleum	12.5
Chemicals	12.2
Public utilities	10.3
Communication, commercial and other nonmanufacturing	8.9
Stone, clay, and glass	7.6
Textiles	7.4
Other nondurable manufacturing	6.6
Other durable manufacturing	5.6
Mining	5.0
Food including beverages	4.9
Primary metals	2.3
Rubber	— 4.8
Air transportation	— 9.0
Other transportation	—26.4
Railroads	—35.2

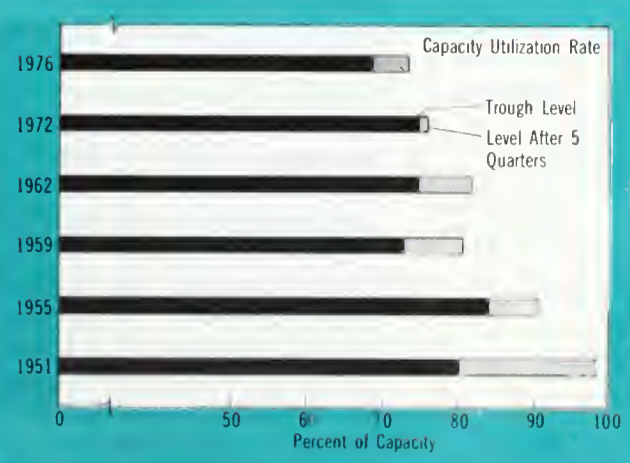
Short-term changes in the labor-capital price ratio can also influence investment. The labor-capital price ratio used in Chart 2 is simply the index of the average hourly earnings in manufacturing five quarters after the trough based on the trough value as 100.0 in the numerator and the corresponding index for the price of nonresidential fixed investment in the denominator. The percentage change in this ratio is given in the chart. A faster rise in the labor-capital price ratio would favor investment because the labor hourly cost is rising faster than the price of capital. The influence of the change in the relative costs of labor and capital on investment, however, must be weighed within the context of a given change in cash flow and capacity utilization rate. The percent change in the recent recovery of the labor-capital cost ratio appears to be the same as the change in the preceding recovery and should signal that similar conditions in respect to relative costs of resources prevail. Given that the labor-capital cost relationship is similar to that of the 1972 recovery and the rate of capacity utilization not decisively less in the second quarter this year than at a similar point in the earlier recovery, the plant and equipment investment response appears to be 10 percentage points less than the 1972 response. This situation suggests that, if a catchup reaction should occur, it could mean significant further production impetus.

These determinants of investment and others will continue to affect capital expenditures plans and actual flows in what is know to be a complex decision process. The shift in the year's pattern of capital spending suggested by the new plant and equipment spending survey, as well as by the additional supporting data, signals that the long-awaited upswing is here. ☆

Business Fixed Investment and Determinants in Recovery Periods 2



SOURCE: Plant and Equipment Expenditures: U.S. Dept. of Commerce; Cash Flow and Labor Capital Price Ratio derived from U.S. Dept. of Labor and U.S. Dept. of Commerce data



SOURCE: Federal Reserve Capacity Utilization Rate

ocean

Floating factories could harvest 40 percent of nation's ammonia needs

Five-hundred-thousand-ton factory ships, gently moving across tropical seas, may be helping to solve this nation's energy problem within the next decade.

By 1986 a fleet of 21 specialized commercial vessels could be producing as much as 40 percent of the national ammonia requirements out of energy derived from the oceans, at a considerable saving in natural gas which now is the principal raw material used in making ammonia.

This is the major finding of a 12-month study conducted for Commerce's Maritime Administration by the Johns Hopkins University Applied Physics Laboratory. It is one of several such studies under way on ocean resources in solving the energy problem.

Entitled *Maritime and Construction Aspects of Ocean Thermal Energy Conversion (OTEC) Plant Ships*, it studied the feasibility of building vessels to convert ocean thermal energy into electricity and to produce ammonia, hydrogen, aluminum, and other energy-intensive products at competitive costs.

The report proposes that each of these vessels could produce 1,600 tons of ammonia per day, by "grazing around" at speeds below one knot in the tropical seas, where the temperature differential between surface waters and the depths is highest. The capital cost of such vessels varies inversely to the temperature differential of the available water, so the tropical location could reduce costs by a factor of as much as 2.5 from a site located near the U.S. coast.

The OTEC vessels would produce electricity, by piping aboard warm surface water to evaporate ammonia in a closed system, creating a vapor which would drive turbine electrical generators. The vapor would then be condensed by cold water drawn from depths of 2,500 feet, and the cycle would begin again.

The electricity generated by this process would be used to electrolyze water to produce hydrogen and to power an air liquefaction plant to produce nitrogen. The hydrogen and nitrogen would then be compressed together to form ammonia. The ammonia would be stored at -28 degrees Fahrenheit until it could be loaded aboard ammonia tankers.

The vessels would require no new technology. As designed, American shipyards could start working on a demonstration model today. "This is a highly 'doable' approach," according to the report's authors, who recommend "in the strongest possible terms" that it be tried.

500 megawatts per day

The report recommends that a demonstration vessel capable of producing 100 megawatts of electricity per day be built and in operation by 1981. Between 1982 and 1986, the report suggests, 21 commercial-size vessels could be put into operation, each producing 500 megawatts of electricity per day and 586,000 tons of ammonia per year.

The demonstration vessel would displace approximately 141,600 tons and cost approximately $124 million. It would be 476 feet long and 196 feet wide, and would be equipped with heat exchange

energy

machinery, auxiliary equipment, a 10,000-ton ammonia storage area, and sleeping and recreational quarters for 31 crewmen.

The commercial-size vessels would displace between 500,000 and 600,000 tons, and would require 39 crewmen each. The cost of the commercial vessels is estimated to range from $491 million for the first to $367 million for each of the last 15.

Although such vessels would be capable of extracting several energy-intensive products from the ocean, the near-term emphasis would be expected to center on ammonia. It is a vital component in fertilizer production, which accounts for 75 percent of present U.S. ammonia consumption. Currently, production of ammonia accounts for about 3 percent of U.S. natural gas usage, and projections are that it may require more than 7 percent by 1985 and 11 percent by 1990.

In view of the outlook for natural gas supplies, the United States clearly could use an alternative to ammonia production.

The report also lists these other likely benefits from a successful OTEC/ammonia program:

- An annual savings of 500 billion cubic feet of gas, about 3 percent of the 1986 U.S. natural gas supply. This would benefit each of the 32 million American households using natural gas;
- 101,000 new jobs in U.S. shipyards;
- 1,600 new U.S.-flag shipping jobs;
- Additional jobs in the aluminum industry, in concrete, in steel, and in the industrial equipment sector;
- Farmers would benefit from any long-term fertilizer price improvement, and
- There could be a net profit for the plant owners of the sixth and subsequent ships of about 50 percent on sales per ship per year.

Successful development of OTEC/ammonia plantships could also lead to the sale of that technology or the plant-ships themselves to other nations lacking large supplies of fossil fuel, the report indicated.

The relatively high investment required for these vessels remains a matter of concern, the authors note. However, detailed cost estimates in the report indicate that, at a production cost of $96 per ton f.o.b. New Orleans and a selling price of $180 per ton, the investment costs can be recovered in 5½ years. After that, the money would start rolling in, if the estimated profits listed above prove realistic.

However, the report concludes that government assistance will be required for the earlier commercial vessels to produce ammonia at this price.

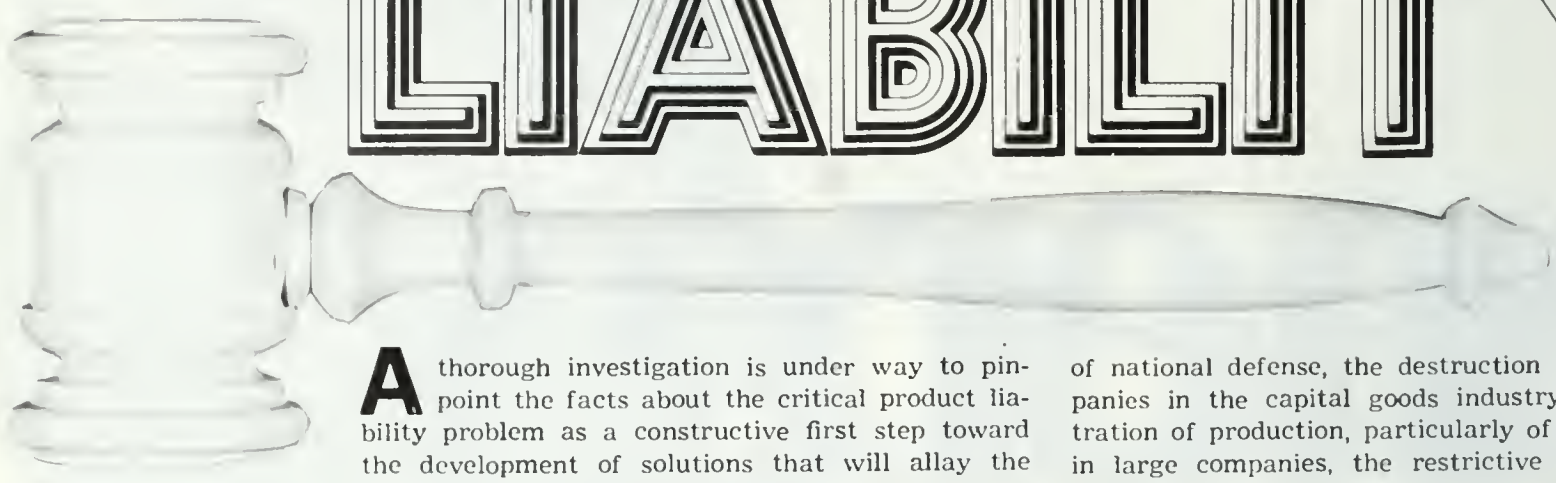
A favorable economic aspect which should encourage prospective investors is the fact that the competitive positions of an OTEC/ammonia plantship is expected to improve as the years pass. Its production cost will be affected less by inflation than will that for a land-based plant using fossil fuel as feedstock. It may also benefit from future ocean industrial complexes to be based on OTEC vessels.

The study identifies six areas--three in the Atlantic and three in the Pacific—where weather and thermal conditions would permit optimum operation of the vessels in non-hurricane months.

It also points out that the vessel is an extremely stable platform which could be very useful for a variety of research activities in addition to its primary mission of producing ammonia or other energy-intensive products.

A total crew of 48 would be required for the demonstration vessel, (31 on board, and 17 backup personnel ashore on leve). Accommodations would include 24 spare cabins for scientists, inspectors, and government officials participating in the demonstration tests and other programs. ☆

PRODUCT LIABILITY



. . . the product liability problem has arisen because of changing trends in court judgments . . .

A thorough investigation is under way to pinpoint the facts about the critical product liability problem as a constructive first step toward the development of solutions that will allay the current crisis and bring relief to American industry.

Under Secretary of Commerce Edward O. Vetter outlined the scope of the inquiry, which is being made by the Interagency Task Force on Product Liability, in testimony recently before the Senate Small Business Committee. Vetter is chairman of the task force.

The committee held two days of hearings on the product liability problem in which a number of panels of industry leaders, trade association spokesmen, insurance company representatives, and others stressed the critical nature of the problem. One after another warned that action is imperative to save many small companies that either are unable to obtain or pay for product liability insurance or that are faced with skyrocketing insurance premiums so staggering that they may be forced to merge or close down.

Witness after witness said the product liability problem has arisen because of changing trends in court judgments, particularly the theory of strict liability, whereby a seller may be liable for injuries caused by his product despite the fact that he was not at fault in any cognizant way; liberal awards by juries to plaintiffs based largely on emotional reaction; excessive contingency fees paid to lawyers for plaintiffs; punitive damages; applying standards in effect at the time of injury to a product made years before; and various other causes.

To deal with the situation, the witnesses advocated a wide range of remedies. Perhaps the most frequently mentioned were a statute of limitations running from the time the product was first sold rather than from the date of the injury; curbs on contingency fees; limitations on or abolition of punitive damages; applications of standards in effect at the time the product was made rather than those in use at the time of the injury; and certain others.

Dangers that witnesses saw in the situation included the hampering effect on economic development, production, and commerce, the impairment of national defense, the destruction of many companies in the capital goods industry, the concentration of production, particularly of capital goods, in large companies, the restrictive effect on the ability to raise capital, the greater unemployment, the rising prices for goods and services, and the boost in the nation's dependence on foreign imports.

In his testimony, Vetter explained that the scope of the investigation would include product liability problems in several product areas, including products with work-place impact and consumer impact, studies dealing with industrial practices, insurance, and the courts, and remedies.

The study of product areas, he explained, would be broken down as follows:

Products with work-place impact: industrial machinery, metal cutting, metal forming, woodworking and textile machinery; industrial grinding wheels; ferrous and non-ferrous metal castings, primarily those used as components of capital equipment; industrial chemicals, including both organic and inorganic substances, used in products and in the production process; and other industrial products that have caused special product liability problems for manufacturers, insurers or persons injured in the work place.

Products with consumer impact: aircraft components; automotive components related to safe vehicle operation, including manufacture and distribution, but not installation and repair; medical devices; pharmaceuticals; and other consumer products that have caused special product liability problems for manufacturers, insurers, or consumers.

In the industrial study, Vetter said the Task Force would examine company practices designed to reduce or eliminate product liability claims, such as quality control, product recall, worker protection efforts and safety devices.

"We will try to determine," Vetter said, "whether these measures are effective in regard to accident reduction and also whether they may reduce the cost of product liability insurance for the manufacturers that implement them.

"We want to know the number and type of product liability claims that have been opened and filed from 1970 to 1976 and the basis for these claims. We hope to determine which type of prod-

PROBE SEEKS REMEDIES TO A CRITICAL U.S. INDUSTRY PROBLEM

ucts have been most frequently subject to product liability claims. We also hope to provide some indication of the potential liability of companies whose products have been out in the market place for a period of years."

In the insurance study, Vetter said the Task Force would want to determine the basis used by insurance companies for establishing product liability premiums and learn as much as possible about current problems existing in the product liability insurance area.

For example, he explained, the Task Force will try to find out the extent to which manufacturers are unable to obtain insurance, whether insurance companies are implementing significant coverage restrictions at present, the extent to which reinsurance is being used in the product liability market and the cost of that approach, the extent to which companies have had to shift to surplus lines insurance, and the costs of these shifts, the extent to which manufacturers have shifted to self-insurance, and whether companies that could not afford to do so had taken that step.

"With regard to each of these questions," he said, "we want to know whether small as compared to large companies have had different experience."

In the legal study, Vetter said the task force "will focus on some of the more important variables among the states in product liability law."

For example, he explained, the Task Force will want to know how courts determine whether a company properly designed its product; how courts determine whether an injured party will have his claim barred or reduced because of his own conduct; how courts determine whether a company has properly exercised its duty to warn users and consumers about the hazards connected with the product; and how courts determine whether a company can place on a third party all or part of the amount it must pay the plaintiff.

"With respect to these and other legal rules," Vetter said, "we will attempt to make a judgment as to whether they deprive a person injured by a product of a right to obtain a recovery against a manufacturer or whether they unreasonably subject a manufacturer to liability, in whole or in part."

With respect to remedies, Vetter said that while the Task Force data base is extremely thin, it is considering whether remedies would: increase the availability of "affordable" product liability insurance; expedite the reparation process; place the incentive for risk prevention on the party or parties best able to carry out these measures; place the cost of accidents on the party or parties who should or are best able to absorb them; and unreasonably deprive an injured party of reparation for a product related injury.

Vetter discussed a number of remedies brought to the Task Force's attention, such as: a statute of limitations running from the time the product is sold; guidelines as to when, if ever, a company should be held liable when a plaintiff has been injured through his own misuse of the product; a periodic payment system instead of the existing lump sum system of awarding damages; modification of rules relating to third-party claims; abolition at least in part of the tort litigation systems for determining the cost of accidents; joint underwriting associations and reinsurance mechanisms in the product liability area; and a general or limited preemption by federal tort law in the area of product liability, and also insurance.

"Despite the inherent limitations of time and resources," Vetter said, "it is our hope that our final report will provide some new and careful thought about product liability problems."

He explained that the Task Force is scheduled to report to the Economic Policy Board in the White House on December 15. The Board initiated the Task Force investigation.

Meanwhile, Commerce Secretary Elliot L. Richardson announced the formation of an Advisory Committee on Product Liability to provide the Commerce Department with ideas and guidance in coping with the problem. The 18 members of the committee represent manufacturers, wholesalers, retailers, the insurance industry, insurance regulators, the legal profession, labor, and consumers.

Senator John C. Culver, of Iowa, who presided at the Senate hearing, questioned whether appointment of another committee in the product liability area was desirable. He said that creation of a committee was "usually a substitute for work."

. . . American industry will decline constantly if it is not guaranteed access to product insurance.

Vetter explained that the work of the advisory committee would be parallel to that of the Task Force, and that it would assist the Task Force studies instead of duplicating them.

Referring to the legislation dealing with the product liability problem, the Senator said "we shall have to do something legislatively in the next year."

He said that American industry will decline constantly if it is not guaranteed access to product insurance.

"We don't know," Senator Culver said, "the extent of the problems in terms of how many small firms are affected and to what degree, but every product manufactured and sold in the U.S. should be insured to protect the manufacturer, distributor, and retailer. The liability for all products now in existence and those yet to be made is just tremendous. What we do know is that American industry is saying 'help.' It would be foolish to suppose that that cry is superficial at best or dishonest at worst.

"We wish to determine the extent of the product liability problems for small businesses and what measures in both the short and long term might be taken to alleviate them. If the lack of product liability insurance is an obstacle to the survival of American small business, we must find a way to remove that obstacle."

Louis F. Laun, Deputy Administrator of the Small Business Administrator (SBA), explaining to the Senate group that the SBA is participating in the work of the Task Force, suggested that any of the remedies proposed for product liability problems should be assessed in relation to the potential effects they would have on small firms.

Remedies that have been proposed, he said, vary greatly in the time required to put them into effect. But from the viewpoint of small firms already affected by product liability problems, he added, the time factor is critical in assessing their merits.

He recommended that each proposed remedy be examined in terms of specific small-business related criteria, which should include the following:

Does the remedy include the product liability exposure of small firms? Does it impose an additional cost burden on small firms beyond the level of normal operating costs? Does it adversely affect the competitive position of small business? Does it propose substantive changes in operating methods which would be costly to implement?

Does the remedy make product liability insurance available to responsible small businesses not able to find such coverage? Does it increase the availability of product liability insurance at affordable premiums? Does it suggest government interference in the private sector?

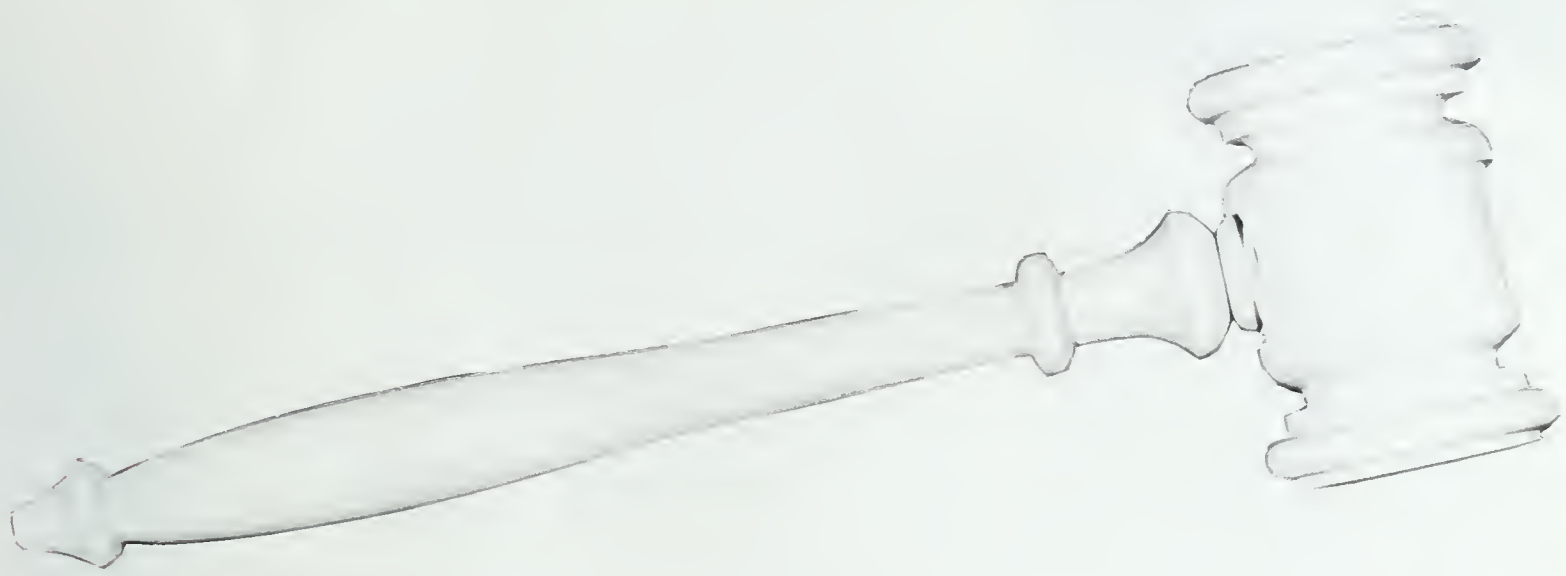
Enactment of a statute of limitations, Laun said, is one widely-supported remedy that might be implemented in the short run.

"We are all aware," he added, "that under present circumstances a manufacturer of equipment may be sued for injuries from equipment produced decades before. Often, the equipment has changed ownership a number of times, it has been modified, and possibly has even been 'recycled.' The original manufacturer has often completely lost track of the equipment, but yet he may remain liable for injuries."

James T. Gillice, Loss Prevention Director, Washington Office of the American Mutual Insurance Alliance, presented to the Senate Committee a number of proposals, several of which were supported in whole or in part by many other witnesses. They included the following:

A statute of limitations running from the time the product was placed in the stream of commerce; in cases where industry-wide manufacturing standards had been established, compliance with the standards would give the manufacturer a defense in an action based on a defective product; limit liability for non-economic loss; shield the manufacturer from liability if the product injury is caused by an alteration of the product; regulate contingency fees; prohibit retroactive application of current manufacturing standards or state of the art judgments; limit punitive damages; eliminate the *ad damnum*, or a demand for damages in a specific dollar amount except with respect to statements as to dollar amounts required by law to establish that the action came within the jurisdiction of a particular court; and utilize split trials in which the question of liability is first determined and then the damages in a separate trial if liability is found.

"Insurers," said William L. Martin, Vice President and General Counsel of the American Insur-



ance Association, New York, "merely respond to the legal system as they find it. Insurance costs are determined by that system. Too often in the past we have attempted to solve burgeoning social problems by tinkering with the insurance system. No amount of tinkering with the insurance system will respond to a disordered legal system. Correct the latter and the former corrects itself."

The Advisory Committee on Product Liability held its first meeting Sept. 20 and tentatively arranged to hold a second meeting Nov. 1, and a third Dec. 10, in an effort to assist the task force in time for its report to the White House Economic Policy Board Dec. 15.

Judge Ned Price, Senior Member of the State Board of Insurance, Austin, Tex., chairman of the Advisory Committee, presided at the meeting, which was devoted largely to the presentation of individual views by members of the committee.

Prof. Victor E. Schwartz, of the University of Cincinnati, project director and chairman of a working task force devoting full time to the inquiry, said the investigation related to tangible products and not services, with particular reference to products with a high incidence of claims. An effort will be made, he said, to come up with recommendations for remedial action.

"The tort litigation system," he said, "is wasteful and slow in the area of product liability and an overhaul is due."

He said he had received complaints from consumer groups that persons with claims of $1,000 or less under the existing system can get no recovery because they cannot obtain the services of a lawyer to handle the case. The complaint, he said, is that "only a few hit the jackpot."

He explained that the staff will examine carefully the wide range of remedies proposed, and make recommendations which will attempt to deal reasonably and effectively with the problem.

Industry spokesmen repeated the protests they have made about the critical nature of the product liability problem, and the rising insurance rates, while representatives of trial lawyers and consumers presented different viewpoints.

Fred G. Secrest, Executive Vice President, Ford Motor Company, Detroit, said it could be assumed that the changing product liability situation is of less concern to the large manufacturer than to the small, and that the large company in some degree can fall back on self-insurance.

He pointed out that in the last year the premiums Ford has had to pay for product liability insurance have tripled. But at the same time, he added, Ford will not wind up bankrupt.

Still he questioned that it would be sound policy to attempt to treat the large company differently from the small.

William M. Brooks, Senior Partner, Brooks Burke Surgical Supply Co., Atlanta, said that as an independent small distributor, he was at the opposite end of the spectrum from Ford Motor.

Businessmen engaged in his line of business, he said, are unhappy to find themselves parties to lawsuits involving products that they were not aware of and being charged with fault for injuries that actually were due, not to the product itself, but to people operating it.

Ralph B. Baldwin, President, Oliver Machinery Co., Grand Rapids, Mich., suggested that contingency fees were a basic problem, and that if there were no contingency fees "frivolous suits involving outrageous claims would not be filed."

But Melvin Block, Brooklyn, N.Y., attorney, presenting the trial lawyer's viewpoint, said the average attorney share in a liability claim was one-third, which he considered "fair." He insisted that there were no really inordinate jury awards and that in New York State an award was reviewed by 19 persons, 13 of whom were judges.

Paul Rheingold, New York attorney, said he doubted that a product liability crisis existed, but he added that "apparently the trial is over and the only question now is how the court system is to be changed."

At this, Under Secretary of Commerce Vetter commented that "the verdict has not been rendered," and that the task force intended to go into all aspects of the problem before attempting to reach conclusions, including the question as to whether or to what extent a crisis existed.

Jack Sheehan, Legislative Director of the United Steel Workers, stressed the need for a thorough review of the entire question of workmen's compensation as related to product liability and said there are many other ramifications in the picture that need to be examined. ☆

Enactment of a statute of limitations . . . is one widely-supported remedy that might be implemented in the short run.

Energy Digest

REMOTE CONTROL . . . An innovative communications and control system that potentially can pinpoint electric outages, read utility meters remotely and reduce power consumption during times of highest consumer demand will be tested in a new project sponsored by the Energy Research and Development Administration. The system, which uses a computer and other sophisticated equipment to "communicate" with household electric meters and appliances, is to be installed by San Diego Gas & Electric between volunteer customers and the company's electric distribution control center. A central computer operation will monitor electric usage and send messages in the form of signals to transponders in participating homes or businesses. The system also will be capable of controlling the operation of individual home appliances. This will allow the utility to reduce the electric load on generating facilities during times of peak use by selectively turning off, for brief periods, certain major appliances such as water heaters, electric space heaters or air conditioners. With the appropriate control procedures, the project will determine if use of such appliances can be deferred with little effect on the comfort and lifestyle of customers.

"IN MY MERRY COALMOBILE" . . . Automobiles powered by old King Coal? It could happen. Coal can be made into methanol, a substitute for gasoline. Methanol also can be used as a substitute fuel for turbines, steam plants, and fuel cells and can be converted to synthetic gas and chemicals. ERDA has awarded a $1.6 million contract to The Badger Co. of Cambridge, Mass., to prepare a conceptual design for a commercial plant making methanol from coal. Badger will prepare estimates of and operating costs for both commercial and demonstration facilities which might be constructed. Methanol is one of the more promising synthetic fuels from coal, especially in the near term (through 1985). The potential use of methanol as an automobile fuel on a large scale has generated widespread interest recently, primarily because methanol is compatible with today's internal combustion engine.

FOOD SYSTEM STUDIES . . . The Federal Energy Administration has released two publications focusing on energy in the nation's food system which accounts for 16.5 percent of total U.S. energy consumption. Energy Use in the Food System (#041-018-00109-3) is designed primarily for use by food system researchers and specialists, and examines the status of energy conservation data in the food industry, identifying gaps and inconsistencies in existing food system studies and data. It is priced at $2.65. Energy Conservation in the Food System—A Publications List (#041-018-00110-7), a companion piece designed for use by food system managers and energy coordinators, priced at $1.45, is also available from the Superintendent of Documents, GPO, Washington, D.C. 20404.

PARSIMONY PAYS OFF . . . A "Lifeline" rate, favoring low-volume residential customers, was adopted by the California Public Utilities Commission this summer. If a homeowner's energy use falls below a set level, the customer qualifies for cheaper rates. The set levels of energy use differ according to climatic conditions. California is divided into four zones, and the amount of gas or electricity apportioned for winter use depends on the customer's location. Cooking and heating are also allowed set amounts of energy.

GEOTHERMAL BOOST . . . A joint federal-state effort is under way in California to speed the commercial use of geothermal energy resources in that state. ERDA's Division of Geothermal Energy and the California Energy Resources Conservation and Development Commission are to determine appropriate federal, state and local actions which will assist local industries in developing and using the extensive geothermal energy resources of the state in an environmentally acceptable manner. This is the first of four such regional geothermal energy programs to be established in the United States. Similar activities are being initiated in the Northwest, Southwest and Texas-Louisiana.

FREE HOME INSULATION COURSE . . . A four-book package is available to vocational instruction teachers, local officials, and groups planning to teach home weatherization techniques. Simplified fill-in-the-blank booklets help students calculate potential savings and determine appropriate energy-saving improvements. The Federal Energy Administration has sent copies to State Energy Offices and Boards of Education. For copies of "Project Retrotech," write Michael Pete, Office of Weatherization, FEA, 206-OPO, Washington, D.C. 20461.

Firebell In The Night: Closing In On Arson

CENTRAL ROLE SEEN FOR NATIONAL FIRE ACADEMY AS NATIONWIDE EFFORT TO CURB 'EPIDEMIC' BEGINS

It's time to take the profit out of arson! With the nation's arson problem assuming epidemic proportions, the time for handwringing is over. Reflecting this attitude, 36 top-level spokesmen representing various organizations concerned with the arson problem met at the Battelle Institute in Columbus, Ohio, earlier this year at the behest of Commerce's National Fire Academy to map out the beginning of a nationwide attack on arson.

Representing fire and police services, arson investigators, insurance companies, the banking industry, prosecutors and the courts, researchers and educators, the conferees pointed to nine specific needs that must be fulfilled in order to develop a successful program.

Many of the panel's recommendations call for major initiatives by the Fire Academy and its parent organization, Commerce's National Fire Prevention and Control Administration. But the participants were emphatic in stressing the need for the very active participation of the business community and all other segments of the public. Everyone is hurt by arson, and it will take total participation to stamp it out.

The nine specific needs identified as needing immediate attention are:

To define the arson responsibilities of individuals and organizations.

Is arson a police responsibility, a fire responsibility, an insurance fraud responsibility, or what? Each community seems to approach the problem in its own way, but it is clear that success only can be achieved by working together with special attention to the court system. The seminar group challenged the NFPCA to lead in developing a model arson task force concept as a prototype, not to replace existing successful efforts, but to clear the air where local efforts have not succeeded. Each task force would have to meet the specific needs of a particular city, state or region. However, the NFPCA model task force could provide a useful information resource for local authorities to build on.

To reclassify arson in crime reporting systems to reflect its true seriousness.

Because arson is not classified as a "Part 1" crime in the FBI's Uniform Crime Reports it does not get complete reporting and news media coverage. Therefore, there has been little chance to dramatize the spiraling incidence of arson. The seminar group strongly advocated NFPCA leadership in getting this problem presented to the International Association of Chiefs of Police Committee on Uniform Crime Records. This Committee is responsible for setting the definitions of Uniform Crime Reports coverage.

To make all segments of the public aware of arson, its consequences, and the need for action.

Awareness and concern are needed both by the public at large and the smaller "public" who have professional interests in stopping arson. Building awareness and involvement programs should be done continuously, not on a "one shot" basis. The group called on the NFPCA to develop a public information program on arson as a national problem. This program could include a film on arson, a professional journal for interdisciplinary communication, exchange of information on public awareness activities, and a public relations guide for fire service organizations.

To develop and apply job-related training programs on arson for investigators and all other categories of concerned personnel.

Few fire service organizations have trained arson investigators, and there is little training in arson investigation for police. Attorneys, prosecutors and judges need special training in handling arson cases. There is a particular need for coordinated programs within the insurance industry. The seminar group recommended top priority for job-related arson training within the National Fire Academy, with a task analysis to find out what various categories of personnel must be expected to do. Without delay, professional accreditation mechanisms are needed for arson investigators. The NFPCA must encourage the insurance industry to strengthen its own training. Professional training should include use and selection of scientific equipment for detecting fire causes.

To develop and apply better reporting, data collection and data analysis procedures.

The NFPCA's National Fire Data System and a proposed insurance industry information system for identifying persons with repeated fire losses will have impact on the arson problem. But even when both systems are completely implemented—which may take some years—there will be voids of information and statistics. This is complicated by the lack of laws authorizing private authorities to share their information with public authorities and vice versa. There is also a need for an information center specifically devoted to all aspects of arson. User committees should be established to work out compatibility of private and public information systems. At the state level, procedures should be encouraged which would give appropriate legal protection to insurance companies providing information on arson to public authorities. The group recommended that the National Association of Insurance Commissioners promote the development of model legislation in this regard.

To promulgate and apply effective, uniform laws and regulations, particularly insurance regulations and practices.

Arson laws throughout the states lack uniformity, appropriate penalties and delineation of responsibilities. Confusing regulations also have negative impacts on insurance efforts to do something about arson. Better laws are needed, but these must be backed by the resources necessary to enforce them. The group recommended that NFPCA develop a new model arson law for consideration by states, and draw up insurance laws

A COMPLEX PROBLEM—*Trained arson investigators who arrive on the scene while the evidence is still available were cited as a critical need in combatting the problem. Arson is not confined to buildings, as picture at right indicates.*

that could take the profit out of arson. The National Association of Insurance Commissioners was called on to encourage and recognize the insurance industry's own efforts. State insurance pools which share the risk in high-risk areas should be encouraged to accelerate positive actions curbing arson. Finally, the impact of housing and banking laws and regulations in encouraging or discouraging arson should be examined.

To identify and develop adequate sources of funding to combat arson at all levels.

Where there is no agency specifically responsible for arson, there is no specific funding; but even established agencies often lack funds. Federal, state and local government and private sources of funding are not well enough defined. The seminar group recommend that NFPCA identify all federal funding sources. At the state level there needs to be greater concern both by insurance companies (the "givers") and by state fire marshal offices (the "receivers") over the utilization of public funds. Within the insurance industry, and within other sectors of private enterprise affected by arson, there must be increased attention to funding of education, prevention and detection activities.

To conduct research and development of tools for arson investigation and on social and behavioral causes of arson.

There is a lack of understanding, appreciation and application of scientific techniques for identifying the causes of arson fires. What scientific equipment is used often has been adapted from some other discipline. There are particular needs for research on scientific detection methods, on the behavioral patterns of arsonists, and on the social, psychological and psychiatric aspects of fire setting. Scientific equipment must be assessed, and there must be human factors research on its application. A basic behavior research program on arson should be established under the NFPCA. There also is need for research into new materials which might become involved in fires or incendiary devices.

To develop a uniform arson terminology for all disciplines and all parts of the United States.

Uniform legal descriptions and interpretations of arson and related matters are required. The fire investigator needs an everyday glossary for fire cause identification—a field guidebook. The insurance industry needs a better, more uniform interpretation by the courts of insurance policy wording relating to the value of insured property. The seminar group recommends that the NFPCA immediately designate an interdisciplinary committee to develop a glossary of arson terms. Concurrently, a field guide for arson investigation should be developed. Insurance attorneys and the National Association of Insurance Commissioners must develop better, more uniform interpretations of insurance law.

This report places a heavy responsibility on the National Fire Prevention and Control Administration and its National Fire Academy, and properly so. The NFPCA was created to provide a federal home for the fire problem, and arson is one of the most significant aspects of that problem. However, as mentioned earlier, if the NFPCA is to achieve its goal, every concerned American must help.

Limited free copies of the full report, *Arson: America's Malignant Crime*, are available from the Office of Information Services, NFPCA, U.S. Dept. of Commerce, Washington, D.C. 20230.

Satellite Information To Be Expanded For Tuna, Salmon Fishermen

Tuna and salmon fisherman off the coast of California will have broader access to satellite information helping them to find more profitable fishing grounds this season. This results from an expansion of service to fishermen by Commerce's National Oceanic and Atmospheric Administration (NOAA).

The value of the method was proved in a pilot project last year. It involves advising commercial fishermen where "upwelling" occurs in Pacific coastal waters. A NOAA polar-orbiting satellite, equipped with infrared sensors, can identify the cold, nutrient-rich waters associated with upwelling, and provide a picture showing their location. Salmon and tuna have been found to favor these upwelled waters.

Satellite coverage of the Pacific coastal waters has been expanded to include the area from the Straits of Juan de Fuca between Canada and Washington to Point Conception, California, and information from the satellite is now more readily available to fishermen through the use of an automatic telecopier that transmits thermal front data to the dockside more quickly.

The NOAA satellite passes over the coastal area twice daily, relaying environmental data, including sea surface temperatures, back to earth. This information is converted into images in various shades of gray, each shade representing a particular interval of temperature. As a result, thermal fronts, where cold, upwelled water meets the warmer offshore surface water, show up clearly as gray-shade boundaries.

EMPLOYEE CRIME DOES PAY . . . UNLESS CHIEF EXECUTIVE STEPS IN

"Crime does pay for dishonest employees. It is the fastest growing, tax free segment of the economy. It is easy to commit, rarely detected, involves virtually no risk and penalties are minimal, if caught," declared Norman Jaspan at the recent Crimes Against Business Seminar sponsored by the U.S. Department of Commerce and the N.Y. Chamber of Commerce and Industry at New York's Statler Hilton Hotel.

No form of activity is immune—some, however, are more vulnerable: construction, financial institutions, hospitals and retail. These losses are built into the cost of doing business. As much as 15 percent of the price consumers pay for goods and services goes to cover the cost of dishonesty, according to Jaspan, president of a management engineering firm.

"People at all levels of business are involved, but our experience shows that the greatest amount of dishonesty occurs at the supervisory and executive level. Of the more than $100 million of business dishonesty uncovered by our firm last year, trusted employees accounted for more than 60 percent," said Jaspan.

Over the past 40 years the trend of white collar crime has accelerated as a result of mergers, acquisitions, decentralization of operations, computerization, and the displacement of owner-managers, the consultant noted.

Indeed, the very practices set up by management to promote business—such as incentive programs, variable commissions, cash sales, liberal return privileges, premiums, advertising allowances and, last but not least, unaudited expense accounts are consistently exploited by employees.

Furthermore, high excise and sales taxes cause many retailers and distributors to participate in "bootlegging" to meet competition, Jaspan noted. By engaging in off-the-book transactions, they not only meet but undersell legitimate competitors and pocket the taxes, which often exceed their normal rate of profit.

Many employees know about kickbacks, embezzlements, conflicts of interest and falsification of records, but do nothing about it. They emotionally withdraw from a distasteful situation that may involve friends or associates, or they are afraid of being found at fault and criticized. Also, because of profit sharing, stock options and pensions they don't want to rock the boat. They opt to ride it out, Jaspan said.

For every dollar lost through employee dishonesty, an organization loses at least twice that amount as a result of contributing factors—supervisory permissiveness, unrealistic budgets and pressures, and ineffectual controls.

In Jaspan's view, law enforcement at all levels appears to provide virtually no deterrent to any kind of employee dishonesty; only 5 percent of these crimes end up before the courts, and only 1 percent of those involved are sent to jail. "Businessmen who rely upon the police and the courts to stem the tide of fraud will be out of business before the reforms that are necessary become effective."

Business crime is not confined to males. Recent research reveals that women are just as adept at stealing as men. Nearly one out of every three persons arrested last year for larceny or fraud was female.

It is too easy to attribute these escalating losses to a decline in moral standards. Most people are basically honest when they come to a job—all too often the workplace becomes the school for dishonesty.

In contrast to earlier practices, chief directors, CPA's and other professionals are now frequently held both legally and financially responsible. They can no longer consider themselves blameless by reason of their lack of knowledge. Stockholders' suits and governmental agencies pose threats to their personal assets, as well as to their reputations as effective business leaders and advisors.

Fortunately, Jaspan reports, auditors, directors and legal counsel have a stronger position with top management than ever before as a result of recent developments concerning corporate misconduct. They will be required to participate more actively and openly in the affairs of their clients, he says.

Theft is odious and comtemptible, but he emphasized that executives can't run a business on fear. "What is clearly needed is an approach that is humane with a sense of proportion and professionalism. The problem can best be dealt with by businesslike procedures and policies that are fair, just, and easily enforceable."

An effective exposure of suspected theft is best initiated by a thorough, ear-to-the-ground examination that will:

- Uncover and develop the full extent of the loss;
- Substantiate the loss with incontrovertible facts;
- Recover the maximum justified under any fidelity bond;
- Establish preventive controls that are easy to enforce, and that protect the firm's assets.

"Responsibility for the integrity of a company and its employees begins and ends with the chief executive. He cannot delegate his stewardship to subordinates who might be most at fault. There is no other segment of the American economy that can play a greater role in setting the moral tone in which business is conducted," Jaspan summarized.

A similar "Institute on White Collar Crime," sponsored by Commerce's Philadelphia District Office and several local organizations has been scheduled for Oct. 27 at the City Line Holiday Inn.

For details, contact the Citizens Crime Commission of Philadelphia, 1700 Walnut St., Suite 1000, Philadelphia, Pa. 19103.

Safety Gear Catalog Has Metric Section

A catalog of safety equipment containing a metric guide and a special section explaining the requirements of the Occupational Safety and Health Act is available free from General Scientific Equipment Company.

In addition to personal safety gear, the catalog includes safety signs, signals, instruments, cans, welding screens, drum handling, mirrors, belts, and many others. Products are referenced to OSHA requirements.

For a copy of Catalog and OSHA Safety Guide Number 776, write General Scientific Equipment Company, Limekiln Pike & Williams Ave., Philadelphia, Pa. 19150.

Cape Fur Seal Skin Waiver Extended

Approximately 19,000 Cape fur seal skins can be imported from the Republic of South Africa from the 1976 harvest if that nation meets specific conditions set by the National Marine Fisheries Service (NMFS), the Commerce agency has announced.

The action extends a 1975 waiver to a moratorium placed on imports by the Marine Mammal Protection Act. Under the provisions of the waiver, a limited number of the skins can be imported provided certain conditions are met. These include that the skins must have been taken within the Republic of South Africa, in accordance with its laws, and by or under the auspices of that nation; the Republic must certify that none of the skins was taken from Namibia; the skins must be taken in a manner not deemed inhumane by the Director of the NMFS; and none can be imported without a permit from NMFS.

Although the waiver was first granted in March 1976 for skins taken during the 1975 harvest, none have yet been imported.

MINORITY SELF-HELP GROUP CHARTS FUTURE COURSE

A leader in self-help programs, the Opportunities Industrialization Center of America (OIC) recently held its 12th annual convocation. Among the guest speakers at the Philadelphia meeting were Secretary of State Henry Kissinger, Secretary of the Treasury William Simon, and Secretary of Commerce Elliot Richardson.

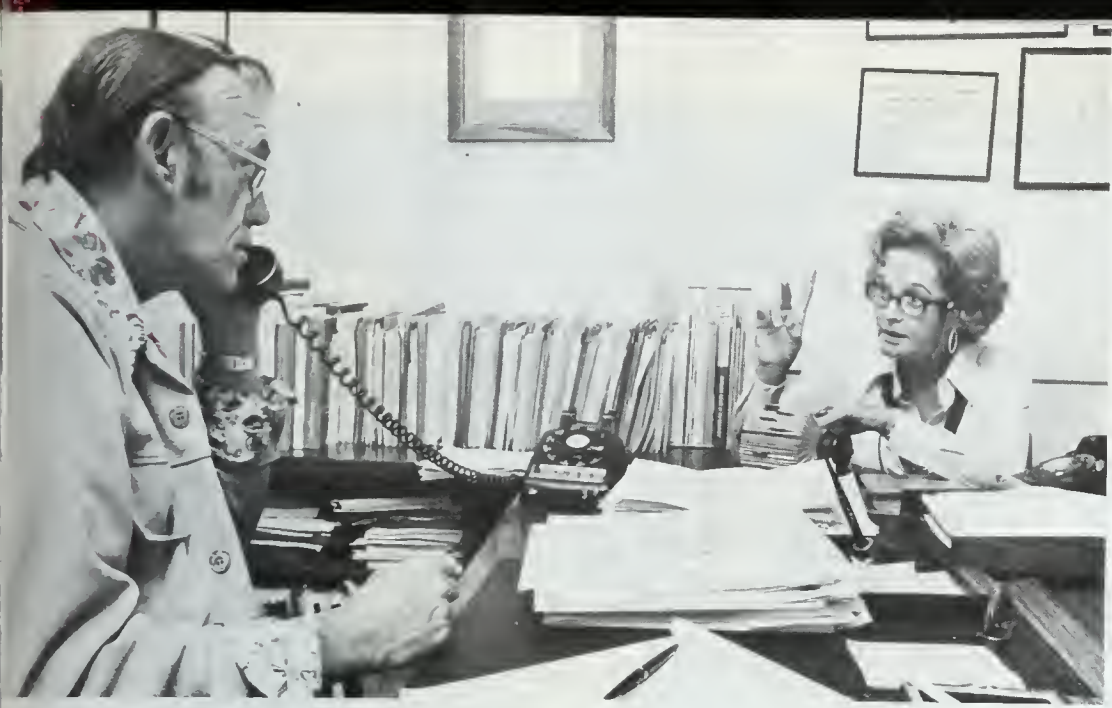
OIC founder, the Reverend Leon Sullivan, was honored as a pioneer in what has since become a major concern in the country: training unemployed urban workers in skills that will enable them to enter secure, well-paying jobs. OIC has established 20 centers, and trained 200,000 minority men and women.

Some 1,500 attendees laid the groundwork for upcoming projects, and heard Secretary Richardson discuss the problem of unemployed and underemployed minorities:

"The answer is that government must motivate the private sector to invest . . . urban economic development must become a local priority; an objective of city governments, civic groups, local business leadership and organizations such as OIC. . . . Objectives are achieved only through resource concentration—through applying funds and energies and people with sufficient weight and force to make an impact. . . . Priorities must be established, and then resources concentrated on those priorities.

"People must be brought together effectively at the local level to coordinate the application of federal development funds and private investment that produces jobs—and this is not happening now to the degree that it should be."

NEW HORIZONS—*Above left, Commerce Secretary Elliot L. Richardson meets OIC trainees from North Carolina: Etta L. Thompson (left), age 84, and her daughter Anne Margaret Thompson, age 66. Above right, convocation attendees huddle with Alex Armendaris (facing camera), director of Commerce's Office of Minority Business Enterprise. Below left, further discussions, and below right, Richardson talks with Rev. Leon Sullivan, founder of Opportunities Industrialization Center.*



PRODUCERS—*Dr. Malcolm Norwood (left), chief of the Office of Media Services for HEW's Bureau of Education for the Handicapped, and computer programmer Joseph Schlagenhaft of the Commerce Department make significant work contributions despite severe handicaps. Dr. Norwood, who is deaf, has telephone conversations translated into sign language by Virginia Lewis before responding, while Schlagenhaft, who is blind, uses a braille typewriter in his highly technical job.*

Smart Firms Find Solution To Lackluster Workforce: America's Handicapped Adults

At a time when the work ethic seems to have lost some of its appeal to many Americans, there is one group that hasn't gotten the word. They still show up early, go home late, and usually do a better job than their fellow workers.

Who are these paragons of whom any employer would be anxious to recruit as many as possible? They are America's handicapped workers, but despite their superior performance record over the years they still often find that employers' doors are closed to them.

National Hire the Handicapped Week, October 3-9, is the country's annual effort to impress employers and Americans as a whole with the problems—and the promise—of America's 11 million adults with physical or mental disabilities. That translates into one out of every eleven adults . . . . an enormous pool of first-rate talent.

The National Alliance of Businessmen, a voluntary association founded to help returning Vietnam veterans find work, has expanded its activities to include all groups of people who have particular difficulty entering the job market, especially minority youth and the handicapped.

Widely-believed myths

James H. Sears, the NAB regional director for the five-state Mideast Region, says that much of the reluctance to hire the handicapped arises from five widely-accepted myths:

Insurance rates will skyrocket;

Considerable expense will be involved in making the necessary adjustments at the work place;

Safety records will be jeopardized;

Special privileges will have to be granted, and

Other employees may not accept the handicapped.

Sears says that these beliefs simply do not hold up once they are subjected to serious study. "Every one of these reasons for not considering the handicapped has been proven to hold no semblance of fact whatever."

Regarding insurance, a study made by the U.S. Chamber of Commerce and the National Association of Manufacturers showed that 90 per cent of 279 companies surveyed reported no effect on insurance costs due to hiring disabled employees.

As to physical adjustments within the plant, most companies report that, when required, they involved minor items such as a lower work bench or an entrance ramp (which can also help in dealing with handicapped customers). But the vast majority of handicapped workers need no special work arrangement at all.

A few years ago, the duPont Company of Wilmington, Del., won the National Safety Council's Award of Honor for the 27th time. A company study showed that 96 percent of its handicapped workers were average or better-than-average in the area of safety both on and off the job. So perhaps that particular myth could be turned around to read: Firms wishing to *improve* their safety records should hire all the disabled employees they can get their hands on.

The "special privileges" are equally fictitious. "The one thing a handicapped worker wants is to be treated like a normal employee," says Sears.

"Fellow employees do not consider a parking spot near the plant entrance for a paraplegic in a wheelchair to be an unwarranted privilege. They wouldn't trade places and don't expect the same treatment."

He also finds that Americans' inherent sense of fair play leads them to accept handicapped co-workers readily. And then, when they find out that these people usually pull more than their own weight in most job situations, the acceptance turns to enthusiasm.

Right down the line . . . . on job safety, performance, attendance and turnover rate . . . . handicapped workers outscore their co-workers. Furthermore, the more severe the handicap, the better the employee! That was the verdict of another duPont study, which found a direct correlation between the job performance of the handicapped and the severity of their impairment. Amputees, blind persons, paraplegics and epileptics were at the top of the job performance list.

About one-third of those studied were hired with physical handicaps. The remaining two-thirds became handicapped after they had been employed (91 per cent were injured during off-duty hours).

Higher motivation

Those hired with impairments showed a higher degree of motivation toward good safety, attendance and job performance than did those who became handicapped subsequent to hiring.

"duPont's experience supports the belief that the utilization of the abilities of the handicapped is good business," Sears concludes.

For more information on hiring the handicapped, contact the President's Committee on Employment of the Handicapped, Washington, D.C. 20210, or the nearest office of the National Alliance of Businessmen.

San Francisco Bay Study Seen Aiding Other U.S. Ports

Foreign and domestic dry cargo trade through the San Francisco Bay Ports will increase four times in volume by the year 2000, with the greatest growth occurring in containerized and other intermodal cargoes, which will expand by nine times.

The likelihood of such growth was one of the findings of a regional port planning study recently completed through the cooperative efforts of Commerce's Maritime Administration and the port industry. The regional port planning study for the San Francisco Bay Area was a cost-shared venture between the Northern California Ports Terminals Bureau (NORCAL) and Maritime.

The first part of the study provides estimates of the foreign and domestic water-borne cargo, excluding crude petroleum, projected to pass through the Bay Area through the year 2020. The second, lists current port capabilities for handling cargoes, with emphasis on dry cargo facilities.

The study helped develop a specific methodology for establishing marine terminal throughput capacity, which has been published separately. The Maritime Administration plans to make this methodology available as a planning tool to ports around the country.

Studies such as this one and others under way elsewhere in the country, contribute to the synchronized development of U.S. ports, consistent with the growth of commerce and the development of advanced shipping systems.

The four-volume report is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Va. 22161. Order numbers and prices are:

Summary Report (PB 256 595/CZ) 53pp. $4.50.

Cargo Projections. Trade Outlook of the Northern California Ports: Year 2000 and Beyond (PB 256 596/CZ). 171pp. $6.75.

Methodology for Estimating Capacity of Marine Terminals Volume I: Standardized Methodolgy (PB 256 597/CZ). 234pp. $8.

Methodology for Estimating Capacity of Marine Terminals Volume II: NORCAL Port Capacities (PB 256 598/CZ). 13pp. $3.50.

Conference To Consider Incentives For Industrial Pest Control Research

A conference on developing incentives for research and development in pest control methods will be held October 26 and 27 at Commerce's National Bureau of Standards.

Sponsored by NBS's Experimental Technology Incentives Program (ETIP), and the Environmental Protection Agency, the meeting will discuss the needs, policies and incentives for innovative research and development of pest control methods by industry.

A series of concurrent workshop sessions will review proposed federally-sponsored incentives. They are designed to make the conference a working forum in which participants are asked to suggest specific, practical steps for implementing the proposed incentives in the real world.

For additional information contact Daniel Fulmer, chief of ETIP's Regulatory Programs, Room A735, Administration Bldg., National Bureau of Standards, Washington, D.C. 20234, (301-921-3465).

Food Stamps Bought By 6 Percent Of Households

About 4.4 million U.S. households purchased food stamps in July 1975, according to a report from Commerce's Bureau of the Census. These comprised 6 percent of an estimated 71.4 million total households.

Sixty-two percent of the households were classified as white and 36 percent as black. (The other 2 percent were headed by persons of other races.) These amounted to 4 percent of all white households, 22 percent of all black households, and 14 percent of all Spanish-origin households.

The report contains data collected in 1973, 1974 and 1975. It shows that among households participating in the food stamp program in July 1975:

- The South accounted for a larger proportion of total participating households (39 percent) than any other region of the country. About 8 percent of all Southern households purchased food stamps, compared with 6 percent for the rest of the United States;
- Sixty-five percent were in metropolitan areas and 45 percent in central cities of metropolitan areas;
- Fifty-eight percent were headed by women, and nearly half of these by women widowed or divorced;

The 4.4 million food stamp households in July 1975 represented a 42 percent increase over the 3.1 million in May 1973. The report says that the major factor contributing to this increase was an amendment to the Food Stamp Act, which expanded the program in 1974.

About 40 percent of the 5.1 million families with income below the low-income (poverty) level in 1974 participated in the program for one or more months.

Copies of *Characteristics of Households Purchasing Food Stamps*, P-23, No. 61, can be ordered for $1.15 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or Commerce district offices in major cities around the country.

Auto Industry Showed 1975 Productivity Gain

Productivity declined or showed only small gains in several major industries in 1975, but increased sharply in the vital motor vehicle manufacturing, where hours dropped more than output, according to the Bureau of Labor Statistics of the U.S. Department of Labor.

The Bureau has published preliminary measures of output per employee-hour for about one-third of the industries regularly included in its annual study.

Motor vehicle manufacturing posted an above-average gain in productivity of 7.7 percent in 1975. The increase, which is more than double the long-term rate, reflected a sharp decline—13.5 percent—in employee-hours and a more limited decline in output of 6.9 percent.

The steel industry had the sharpest decline in productivity recorded in the currently published series, with a drop of 11.6 percent. Output in this industry fell by a near-record 24.3 percent, while employee-hours declined by 14.4 percent. The steep drop in output and associated decline in productivity were due to a reduction in demand in almost all steel markets, as well as a drawing down of inventories by steel fabricators.

Among transportation industries, productivity for railroads and trucking declined by 3.4 and 1.7 percent, respectively. Air transportation, on the other hand, had a slight increase in productivity of 1.2 percent based on only a 0.6 percent dip in output while employment was falling 1.7 percent.

The forthcoming full report, *Productivity Indexes for Selected Industries, 1976 Edition*, will include data back to 1939 for many industries. For further information, contact Office of Information, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C 20210.

SPREADING THE WORD—*U.S. Senator Barry Goldwater (right) looks over Commerce publications at the Farnborough International Air Show in England. Roy Selwyn (left) is newly-appointed UK sales agent for Commerce's NTIS.*

FOREIGN DEALERS TO PROMOTE SALE OF U.S. REPORTS

Technical reports prepared with U.S. government funding are expected to achieve greater sales in England, France and Japan as a result of new contracts signed with representatives overseas by Commerce's National Technical Information Service (NTIS). The dealers will promote, demonstrate and sell NTIS products and services throughout their respective territories, thereby reaching a greater range of users than NTIS currently approaches.

The new agents are: Microinfo Ltd., of Alton, England, serving the United Kingdom and the Republic of Ireland; The Center for Business Information in Paris, serving Belgium and Switzerland in addition to France; and Mitsubishi Research Institute (MRI) of Tokyo.

One million titles

NTIS is the central source for public sale of research, development and other government-funded reports prepared by federal agencies, their contractors or their grantees. NTIS presently has more than one million available titles and adds about 60,000 new ones to its collection each year.

The reports cover a variety of subjects: administration, agriculture and food, biomedical technology, building technology, business and economics, engineering, communication, computers, energy, environmental pollution and control, health planning, medicine, ocean technology and transportation.

Over the past two years, NTIS has signed 18 sales agents in Latin America, Africa and the Far East, through a cooperative program with the Agency for International Development.

Mitsubishi will serve as managing dealer in Japan, supervising a half dozen or more other dealers. As part of the agreement, NTIS will acquire Japanese government-sponsored research reports, abstracts of which will be translated into English and published by NTIS for the ultimate benefit of the U.S. economy. This will be the first time such research has been generally available in the United States. Three MRI specialists recently completed a training program at NTIS headquarters in Washington, D.C.

Industrial Hygiene Course Scheduled For Seven Cities

A Basics of Industrial Hygiene course is being offered during the next eight months by the American Industrial Hygiene Association and the National Institute for Occupational Safety and Health.

The course is aimed at management personnel responsible for health and safety programs, particularly those in medium-sized and smaller companies which do not employ full-time industrial hygienists.

The course will be offered in New York, Oct. 25-29; Dallas, Nov. 8-11; Long Beach, Dec. 6-10; New Orleans, Jan. 24-28; Chapel Hill, March 21-25; Ann Arbor, April 25-29, and Philadelphia, June 6-10.

Further details are available from: American Industrial Hygiene Assn., 66 S. Miller Road, Akron, Ohio 44313.

IN AGREEMENT—*William Knox (center), director of Commerce's National Technical Information Service, signs a sales agreement with Masaki Nakajima (left), president of Mitsubishi Research Institute, Inc., while Takayasu Miyakawa, MRI director of marketing, and Mitsutake Okano, Washington representative, look on.*

County Revenues, Outlays Continue Steep Uptrend

Both revenues and expenditures of the nation's counties continued to rise sharply in fiscal 1974-75, according to Commerce's Bureau of the Census. But expenditures rose faster.

Revenue of all county governments totaled $3.6 billion in fiscal 1975, an increase of $2.9 billion, or 9.3 percent over the previous year.

County taxes accounted for about 39 percent of all general revenue of county governments in 1974-75 or $12.7 billion, with property taxes continuing as the predominant tax revenue source, supplying $10.3 billion or 31 percent. Property taxes showed an increase of almost 8 percent over the previous year's return of $9.6 billion.

Revenues of $11.8 billion from state governments accounted for 35 percent of the counties' general income, about 1.5 percent less than the previous year. Receipts from the Federal General Revenue Sharing Program totaled $1.6 billion, or 10.7 percent of the intergovernmental revenue of county governments.

County government expenditures totaled $33.5 billion in 1974-75, up 13.6 percent from the 1973-74 amount of $29.5 billion. General expenditure (spending other than for utility, liquor store, and employee-retirement purposes) totaled $32.7 billion in 1974-75, compared to $28.9 billion in the previous fiscal year.

Top expenditures

Public welfare, education, highways, and hospitals, in that order, were the leading county functions in terms of expenditures for general government purposes, and together accounted for about 56.8 percent of the total.

Between fiscal 1966 and fiscal 1975, the percentage of county expenditures for public welfare decreased from 23 percent to 19 percent, while the share allocated to education rose from less than 15 percent to 16.5 percent, and health and hospital outlays rose from 12 percent to nearly 15 percent. The proportion allocated to highways dropped from 16.4 percent to 10.8 percent.

The Census Bureau report also covers: expenditure by character and object; indebtedness and debt transactions; cash and security holdings; county utilities and liquor stores; employee-retirement systems; financial data by size groups; and individual county data (including per capita amounts) for 333 counties of 100,000 inhabitants or more.

Copies of the report, *County Government Finances in 1974-75*, GF 75, No. 8, may be purchased for $1.75 from the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or from Commerce district offices in major U.S. cities.

International Visitors To U.S. Increase 11 Percent

Foreign visitor arrivals in the United States showed a substantial increase during the first half of 1976, according to Commerce's United States Travel Service. The United States hosted approximately 7.4 million international visitors during the first six months of the 1976 Bicentennial year, 10.6 percent more than during the same period in 1975. Over 1.4 million of those visitors arrived during the month of June, representing an increase of 4.8 percent over June 1975.

The first half of 1976 saw 4.6 million Canadian visitors travel to this country, a 10.6 percent increase over the same period in 1975. Mexican arrivals numbered 948,221 during the first six months of the year, a decrease of 2.8 percent from 1975.

During the same period, arrivals from countries other than Canada and Mexico increased 18.8 percent compared to the first half of 1975.

European arrivals to the United States increased 27.9 percent over the first half of 1975. Increases were recorded in each of the major European markets: United Kingdom, up 23.6 percent; West Germany, up 24.3 percent; and France, up 39.2 percent.

Asian travel to the United States increased 3.2 percent during the first half of the year, even though Japanese arrivals declined 7.9 percent for the period.

Canadian arrivals in this country during June totaled 802,755, constituting a 2.3 percent decline from last year's June figure. Similarly, arrivals from Mexico in June decreased 3 percent from the level recorded in June 1975.

An increase of 24 percent was recorded in June this year for arrivals from countries other than Canada and Mexico. Travel rose significantly in all major geographic areas overseas, with increases ranging from 10.2 percent for Asian travelers to 57.5 percent for visitors from Oceania.

European arrivals in the United States during June numbered 226,179, representing a 29.6 percent increase over June 1975. Asian travel to this country also increased, by 10.2 percent, although Japanese visitor arrivals declined 4.5 percent from the June 1975 level.

Second Fire Conference Planned For Los Angeles

The Second National Conference organized by Commerce's National Fire Prevention and Control Administration has been scheduled for October 18-20 in the Hyatt House Hotel at Los Angeles International Airport. The conference will focus on "The Dynamics of Fire Prevention," addressing six critical areas of fire prevention and control: persons involved in fire prevention; public education; building design; inspection and enforcement; the role of fire and arson investigation; and how to plan a fire prevention program.

For more information on the conference, contact Peg Maloy, National Fire Conference, National Fire Prevention and Control Administration, P.O. Box 19518, Washington, D.C., 20036, or call 202-634-7663.

Technology Clearinghouse To Aid Minority Business

Commerce's Office of Minority Business Enterprise (OMBE) has developed a program to provide minority-owned business firms with improved access to technical innovations developed under federal government contracts and by private corporations without federal aid.

OMBE recently completed the first phase of this new technology utilization program, which involved gaining support among a broad base of federal agencies and private businesses who conduct technology utilization programs.

Under the second phase, the Booker T. Washington (BTW) Foundation of Washington, D.C., will design and test the operation of a technology clearing house which will offer access to information concerning: 1) product identification; 2) feasibility analysis; 3) marketing; and 4) financing, to minority firms in adapting new technology for the development of commercial products. The new Center will begin providing services to minority firms nationally when the design has been fully tested.

Special assistance

BTW will be assisted in the design and development of the center by Technology and Economics (T&E), a Cambridge, Mass., research and development firm specializing in technology transfer and technology utilization. T&E is currently a prime contractor to NASA's Office of Technology Utilization, responsible for applying space technologies to the building and construction industries.

NFL-COMMERCE TEAM AIDS POTENTIAL EXECUTIVES PURSUE COLLEGE CAREERS

Outstanding high school seniors from all over the county who had little prospect of attending college, can look forward to a four-year college career through the efforts of 25 National Football League players.

These seniors, all of whom are in the top 10 percent of their high school classes but could not have afforded to go on to college, were placed in meaningful vacation jobs found by the ballplayers through Commerce's Business Management Fellowship Program.

During the off-season, the athletes visit businesses in the 21 NFL cities where the program was operable this year and get commitments for jobs the kids can fill during every vacation period during their college careers. Generally, the jobs are in areas of mutual interest to both the firms and the students, and are designed to be progressively more responsible, so that by the time the students graduate they have acquired a background that qualifies them for a junior managerial slot.

This year's top recruiter was Ed White of the Minnesota Vikings, who matched 114 Twin Cities area students with jobs he had scouted out. Also placing more than 100 kids in jobs he had personally turned up was Joe Profit, a former New Orleans Saint who worked the Atlanta area this year.

For the second year, the ballplayers operated out of the local offices of the National Alliance of Businessmen, a nationwide volunteer organization linking more than 70,000 business firms. It was set up in 1968 to help obtain jobs for Vietnam veterans, needy youngsters and ex-offenders. The NAB provides much-needed secretarial service and office space, as well as giving the busy ballplayers a place to hang their hats.

The NAB offices can also provide the program with year-round continuity by serving as contact points for the students during the half-year that the ballplayers are back with their teams.

For the companies, it cuts down recruitment and training costs, gives direct access to top-flight future management potential, helps a firm's relationship with its community, and allows a company to track the academic progress and job performance of prospective career employees over a four-year period.

The program is open to all who qualify. A high percentage of the students who have already received fellowships have been female. This is due to the high percentage of young women in the upper 10 percent of high school graduating classes. Thus, it can also benefit a firm's affirmative-action program.

The program's on-the-job pattern calls for the students to rotate among several assignments to gain experience in a wide variety of jobs, beginning with the simplest and working up to the most exacting. By graduation, they should have acquired a well-rounded background which qualifies them for management or professional positions. However, it could also help prepare them to become entrepreneurs on their own.

To participate in next year's program, contact the Business Management Fellowship Program, Room 5206, U.S. Dept. of Commerce, Washington, D.C. 20230 (202-967-4250 or 4895), or an NAB office.

Calendar Of Business Events

Sept. 29-Oct. 1 — Scottsdale, Ariz. — Marine Distribution of Bulk Plastics Resins, Scottsdale Hilton. Sponsor: Society of the Plastics Industry, Inc. For information, SPI, 355 Lexington Ave., New York 10017 (212-573-9400).

Sept. 30-Oct. 1—Palo Alto, Calif.—Software Management—Defense Systems & Other Federal Programs, Rickey's Hyatt House. For information, V. Traub, American Institute of Aeronautics & Astronautics, Suite 1403, 444 W. Ocean Blvd., Long Beach, Calif. 90802 (213-437-7465).

Oct. 2-30—Baltimore—Computer Basics for Managers weekly course. Sponsor: U. of Maryland. For information, U. of Md. University College, Center of Adult Education, Conferences & Institutes Div., College Park, Md. 20742 (301-528-7390).

Oct. 3-5—Cincinnati—81st Annual Meeting of Ohio Valley Improvement Assn., Netherland Hilton Hotel. For information, OVIA, 401 Carew Tower, Cincinnati, Ohio 45202.

Oct. 3-8—Pittsburgh—First Congress of International Technology, Pittsburgh Hilton. For information, International Technology Institute, 7125 Saltsburg Rd., Pittsburgh, Pa. 15235 (412-795-5300).

Oct. 5-7—Cincinnati — NONTRAD '76 (Conference on Nontraditional Machining), Convention Ctr. For information, Society of Manufacturing Engineers, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500).

Oct. 5-7—Washington—Improving Managerial Skills, Georgetown University. For information, Continuing Management Education—SSCE, Georgetown Univ., Washington, D.C. 20057 (202-625-4353).

Oct. 5-8—College Station, Tex.—Second International Marine Technology Assessment Conference, Texas A&M Univ. For information, Dan Bragg, Industrial Economics Research Division, Texas A&M University, College Station, Tex. 77843 (713-845-5711).

Oct. 5-8—New York — GASTECH 76 (Conference on LPG and LNG), New York Hilton. For information, Gerald G. Kallman, Kallman Assoc., 30 Journal Sq., Jersey City, N.J. 07306 (201-653-3304).

Oct. 6—Columbia, S.C. — Business/Consumer Relations Conference, Carolina Inn. Sponsors: S.C. Chamber of Commerce, Commerce District Office. For information, Margaret Patrick (803-765-5345).

Oct. 6-8—Gaithersburg, Md.—National Conference of Standards Labs, National Bureau of Standards. For information, R. C. Sangster, NBS, Boulder, Colo. 80302 (303-499-1000 ext. 4329).

Oct. 7—New York—Sixth Annual Eco-Technic Recycling Conference, Waldorf-Astoria Hotel. For information, Howard Ness, National Assn. of Recycling Industries, Inc. 330 Madison Ave., New York 10017 (212-867-7330).

Oct. 8—Cumberland, Md.—Business Opportunity/Federal Procurement Conference, Ali Ghan Country Club. Sponsor: U.S. Rep. Goodloe E. Byron. For information, Robert C. Petersen, Greater Cumberland Chamber of Commerce, City Hall Plaza, Cumberland, Md. 21502 (301-722-2820).

Oct. 8—Houston—Productivity Today—Annual Fall Industrial Engineering Conference, Marriott Motor Hotel. For information, Marvin Smith, Industrial Engineering Dept., University of Houston, 3801 Cullen Blvd., Houston, Tex. 77004 (713-749-2538).

Oct. 12—Gaithersburg, Md.—Symposium for Documentation of Computer Programs and Automated Data Systems, National Bureau of Standards. Sponsors: NBS and Civil Service Commission. For information, Mark Silverman, U.S. Geological Survey, Computer Center Div., 12201 Sunrise Valley Dr., Reston, Va. 22092 (703-860-7117).

Oct. 14—Kingsport, Tenn.—Productivity Measurement Seminar, Ramada Inn. Sponsor: Greater Kingsport Area Chamber of Commerce. For information, Commerce Memphis Office.

International Commerce Report

Producing In U.S. Seen Best Entry To Market

SWEDISH-BASED STEEL FIRM'S EXPERIENCE IN AMERICA ILLUSTRATES ADVANTAGES FOR FOREIGN SUPPLIERS

The competition is the keenest anywhere in the world, but the opportunities are the greatest—now more than ever.

A European-born industrialist thus characterized the current U.S. manufacturing scene to executives from 15 nations who are examining possible establishment of production facilities in the United States.

Bert A. Fernaeus spoke from direct experience. His Sweden-based specialty steel firm, Sandvik, Inc., is in the midst of a major expansion of its still new tubular plant at Scranton, Pa. Sandvik has served American customers since 1876, has operated its own distribution net in this country throughout the 20th century, and took the plunge into U.S. manufacturing about 15 years ago.

Invited to present the Sandvik story as a "case study" at a manufacturing investment seminar at Reston, Va., this month, Fernaeus explained why his company had turned to U.S. production. "As with many other importers, we had reached a plateau in our sales to the American market. For us it was in the neighborhood of 5 percent of the total U.S. market. If we were going to go beyond that, we knew we had to provide services that were not possible from Europe. I should mention delivery schedules, for one. The U.S. customer, you know, is spoiled—he wants, and gets, two to three weeks delivery where others will accept months. It was a question of manufacturing here, or retreating from an attractive market. So in 1960 we established our first American plant, and we have been growing ever since."

Fernaeus sketched some of the great differences in the American business scene from the European environment he had known. Government spending and purchasing is not dominant here, which makes the free market forces so much stronger. Then, only a mere fraction of U.S. production is exported—a tempting circumstance to a European scenting unlimited growth possibilities. Also, it was quickly apparent to him that mass production for a huge market could bring costs down. And that legendary pioneer American spirit of achieving success through hard work—yes, it was still in evidence.

On the other side of the ledger, Fernaeus found some major challenges. The U.S. market demands greater flexibility in using and risking capital. American customers, as he put it, "decide suddenly to spend or not to spend." As a consequence, startups in production are faster than Europeans are accustomed to, and so are the shutdowns. And the extent of the zest for competition that exists in America can be a startling experience for a foreigner.

Fernaeus is one of seven Swedes working with 350 Americans at the Sandvik Scranton plant. About 90 percent of the employees were hired locally. Excellent two-way relationships have been established with the local community, beginning with the chamber of commerce. Employment, training, promotion and community involvement policies have solidified Sandvik's status in Scranton.

Sandvik is reaping benefits as a producer in the U.S. market today rather than an importer, Fernaeus concludes. The international currency realignments of the 1970s have had a significant effect on comparative costs. Looking at the wage scales in his own company, Fernaeus sees them tipping markedly in favor of U.S. production. In regard to productivity, he commented that the record of the U.S. affiliates has been good, and is possibly now better than that of the Swedish parent.

The investment seminar was sponsored by the National Association of State Development Agencies, the U.S. Commerce Department, and the Chamber of Commerce of the U.S. Similar meetings have been held earlier in Tokyo, Osaka, Munich, Duesseldorf, Stockholm, Paris and London.

Speakers outlined the opportunities awaiting foreign investors in these terms:

About the overall American "open door" policy, Assistant Secretary Leonard S. Matthews of the Commerce Department said: "The basic attraction for investing in the United States is the chance to make a fair profit. And we have the kind of business climate that lets you do that, without the restrictions you find in many other countries."

On the economic outlook to 1980, Chase Manhattan Bank economist Richard M. Everett said he believes the U.S. can overcome its price inflation problems and achieve an annual growth rate of about 5 percent in the years ahead. He commented that he felt the current uptrend could be maintained for an extended period, and saw brightest prospects in the capital equipment and consumer goods field.

About U.S. regulations affecting corporate activities, particularly anti-trust laws and those touching consumer protection, work safety and environmental protection, lawyer Mac Dunaway advised the foreign executives not to view this federal interest with trepidation, but to see it rather as an effort to insure fair markets for all enterprising businessmen.

On U.S. labor relations, another lawyer, Virgil B. Day, said that the central and significant factor is that U.S. workers have an excellent understanding of their stake in the continuing success of the free enterprise system. Thus, he declared, strikes and work stoppages, though sometimes widely publicized, should be seen in perspective, as a minor element in a generally stable, healthy working climate.

On U.S. productivity, Commerce Department Chief Economist Dr. John W. Kendrick sketched the trends in the postwar years, noting that the long series of increases had been interrupted in the mid-1970's, but that there has been a resumption of the uptrend. He emphasized that a period of disillusionment among many Americans with their economic system appears to be ended, and that stability and continuity will be the keynotes in the months ahead.

Describing state assistance available

to manufacturing investors, Mark Feinberg of the Connecticut Department of Commerce defined it in five categories: 1) information, including data on marketing, operating costs, labor, taxes, laws and business climate; 2) direct finder services on plant sites and facilities; 3) help with financing, both public and private, including mortgage insurance, tax-exempt bonds, and funds for both property and equipment; 4) labor recruitment and training, and 5) liaison with governmental units on permits and licenses.

A presentation on comparative taxes by Nebraska official Ron Mertens concluded with observations that varying tax incentives, though important, should not be the prime factor in determining possible investment locations, and that tax levels generally reflect the level of services provided.

U.S.-Polish Trade Discussions Identify Thirty Joint Projects

U.S.-Polish trade appears to be heading toward the $1 billion mark this year and could reach a $2 billion level by 1980, the Joint American-Polish Trade Commission concluded during talks this month in Washington.

The governmental body held its sixth session at the Commerce Department, with the meetings being chaired for the United States by Secretary of Commerce Elliot L. Richardson and for Poland by Vice Premier Kazimierz Olszewski.

Among matters reviewed at the Commission session were business facilitation problems; recent Polish regulations regarding conditions for foreign investment; U.S. export control licensing procedures; Polish financial capabilities; negotiation of a new "Bilateral Airworthiness Agreement;" and increasing U.S.-Polish trade through cooperation ventures.

The Polish side identified specific industrial sectors and projects offering particular opportunities for cooperation with U.S. firms, including some in third countries in activities in which the Poles have special expertise.

The U.S. side indicated that some items on the list may conflict with the U.S. Export Administration Act. Interested U.S. firms should consult in advance with the Bureau of East-West Trade's Office of Export Administration on export licensing requirements and with its Trade Development Assistance Division for marketing advice.

The list does not preclude the development of cooperative arrangements in other fields of economic activity, but calls special attention to the following:

- Cooperation in chemical conversion of coal.
- Cooperation in production of equipment suitable for modern methods of coal extraction and coal processing.
- Cooperation in manufacturing of geophysical equipment, seismic apparatus, drilling and geological research items.
- Expansion of copper industry (copper processing and ingot-less rolling of copper).
- Expansion of aluminum metallurgy and aluminum processing.
- Iron and steel metallurgy (rolling mills, wire and pipe drawing, foundries and forges).
- Production of graphite electrodes and of electrode needle coke.
- Cooperation in production of paper mill machinery.
- Cooperation in production of high power steam turbines.
- Expansion of shipbuilding (construction of specialized vessels of total displacement up to 70,000 TDW, mainly barge-carriers, RO-RO, container and semi-container ships, produce-carriers).
- Cooperation in construction of installations for production of sulfuric acid and soda ash for sales in third markets; subcontracting for other chemical plants.
- Joint suppy of sugar plants (processing beets and cane) to third markets.
- Production of integrated circuits (LSI), thyristors and diodes for deflection.
- Cooperation in production of van-type vehicles.
- Cooperation in production of machine tools.
- Production of abrasive discs.
- Cooperation in production of electronic calculators.
- Cooperation in production of color TV picture tubes and heat resistant glass.
- Cooperation in production of textile machinery.
- Cooperation in manufacturing of construction machinery.
- Cooperation in manufacturing of antibiotics.
- Manufacturing of polyester fibers and DMI.
- Expansion of synthetic leather manufacturing.
- Manufacturing of synthetic rubber (especially chloroprene).
- Manufacturing of potato-based products.
- Equipment for production of instant oatmeal.
- Pneumatic grain handling equipment.
- Equipment for production of food concentrates.
- Technology and equipment for concentration of fruit juices.
- Installation for production of cans for goods preservation.

U.S. SHARE OF WORLD'S MANUFACTURED EXPORTS DROPS IN FIRST QUARTER

The U.S. share of world exports of manufactures, excluding shipments to this country, in the first quarter returned to its level of the first two quarters of 1975. At 20.7 percent of the world total, the U.S. share in January-March was more than a full percentage point below the final two quarters of last year.

The decline from the final three months was heavily affected by the drop of four percentage points in the U.S. share of transport equipment, where large swings in deliveries are not unusual. A smaller, although still substantial decline was reported in the U.S. export position in nonelectrical machinery. Only in miscellaneous manufactures, which mainly includes nondurable consumer goods and professional and scientific instruments, did the United States post a share rise of consequence.

The shrinkage in the overall U.S. share from the preceding quarter was attributable to a small decline in the value of U.S. shipments, accompanied by a sizable increase in exports from the other 14 leading suppliers as a group. Exports from the other countries, adjusted for exchange rate changes, averaged nearly 10 percent higher than in the preceding quarter, in part in response to the pickup in worldwide economic activity. Japan and Germany posted export increases of 16-17 percent, while Italy's sales showed little change, and those of the Netherlands declined.

The large drop in the U.S. share of world exports of transport equipment resulted from a 15 percent decline in deliveries from their fourth quarter 1975 level at the same time that sales by the other suppliers as a group expanded. Belgium-Luxembourg, Sweden, Germany, and Japan posted particularly substantial increases in foreign sales. The major decrease in U.S. shipments occurred in military aircraft, although civilian plane deliveries declined as well. Exports of new automobiles also dropped in value as did exports of trucks, especially to Iran, following their huge increase in 1975. Partially offsetting these declines was a moderate rise in shipments of automotive parts to Canada.

The U.S. share in nonelectric machinery was reduced nearly to that prevailing in the middle of 1974 after increasing throughout last year. The decline in the value of these U.S. exports in January-March contrasted with the sizable increases recorded by several competitors, notably Japan, Germany, France, Belgium-Luxembourg, Sweden, and the United Kingdom. U.S. exports of power

generating machinery, materials handling equipment, nonagricultural tractors, and agricultural machinery declined by 10 percent or more. Conversely, deliveries of metalworking machinery, especially to the American Republics, were buoyant.

Although U.S. exports of electric equipment grew moderately in value, the U.S. position relative to other countries declined to a level below the 1974 or 1975 average. Exports from Japan jumped by 44 percent over the final 1975 quarter, while Germany, the United Kingdom, and France recorded lesser, but still substantial increases. Sales of the other major suppliers generally grew at a much slower rate than did those of the United States, or as in the case of Sweden and Switzerland, declined in value from the preceding quarter.

Little change was recorded in U.S. shares of chemicals or basic manufactures. In the latter, which includes semimanufactures of various materials and a few finished metal products, exports from the major trading countries, led by larger sales from Japan, Belgium-Luxembourg, and Germany, expanded at about the same rate as those from the United States. The growth in U.S. exports was slowed by a sharp decline in shipments of steel tubes, pipes, and fittings, especially to the oil exporting nations, which partially offset stepped-up deliveries of paper and textile yarns and fabrics. The U.S. share of world exports of chemicals continued at its recent high level, as increased sales of plastics, dyes, and other products added $100 million to chemical exports. Sales of all the larger U.S. competitors except Japan also rose strongly in the first quarter.

In miscellaneous manufactures the smallest-valued U.S. export group—this country's share increased by half a point to a record 18.4 percent. Exports of scientific instruments and sound recorders rose moderately in value. There were only modest advances in shipments from France and Italy, and a steep fall from the Netherlands, while Japan, Switzerland, and the United Kingdom posted larger increases in foreign sales than did the United States.

U.S. SHARE OF WORLD EXPORTS OF MANUFACTURES

Adjusted for seasonal variation

Commodity	U.S. exports (million dollars)	U.S. share* (% based on export-weighted exchange rates[1])
Manufactures, total		
1974	64,559	20.3
1975	72,176	21.3
1974 1st qtr.	14,273	20.4
2nd	15,825	19.8
3rd	16,861	20.1
4th	17,737	20.9
1975 1st	17,359	20.7
2nd	17,678	20.6
3rd	18,399	21.9
4th	18,906	21.8
1976 1st	18,422	20.7
Chemicals		
1974	8,891	18.5
1975	8,760	20.3
1974 1st qtr.	2,027	19.5
2nd	2,183	17.9
3rd	2,355	17.8
4th	2,332	18.9
1975 1st	2,333	19.8
2nd	2,103	19.3
3rd	2,096	21.2
4th	2,245	21.0
1976 1st	2,340	21.2
Nonelectric machinery		
1974	16,811	26.4
1975	21,083	27.6
1974 1st qtr.	3,639	25.8
2nd	3,987	26.5
3rd	4,434	26.3
4th	4,802	27.1
1975 1st	4,953	27.0
2nd	5,302	27.4
3rd	5,329	27.7
4th	5,514	28.1
1976 1st	5,344	26.6
Electric machinery		
1974	7,156	23.1
1975	7,775	22.6
1974 1st qtr.	1,606	23.0
2nd	1,743	22.6
3rd	1,925	23.8
4th	1,890	22.8
1975 1st	1,872	22.7
2nd	1,929	22.3
3rd	1,955	22.6
4th	2,021	22.7
1976 1st	2,171	22.3
Transport equipment		
1974	14,583	29.2
1975	17,323	28.1
1974 1st qtr.	3,153	30.2
2nd	3,522	27.7
3rd	3,697	28.8
4th	4,268	30.5
1975 1st	3,854	28.0
2nd	4,126	26.6
3rd	4,749	30.3
4th	4,713	27.6
1976 1st	4,028	23.5
Basic manufactures		
1974	11,490	12.3
1975	11,229	12.6
1974 1st qtr.	2,560	12.7
2nd	2,922	12.3
3rd	3,012	12.0
4th	3,012	12.2
1975 1st	2,835	12.1
2nd	2,760	12.1
3rd	2,772	12.8
4th	2,866	13.3
1976 1st	2,873	13.2
Miscellaneous manufactured articles		
1974	5,628	17.3
1975	6,006	17.6
1974 1st qtr.	1,288	17.5
2nd	1,468	17.8
3rd	1,438	17.0
4th	1,433	17.0
1975 1st	1,512	18.0
2nd	1,458	17.1
3rd	1,498	17.6
4th	1,547	17.8
1976 1st	1,666	18.4

Note: The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed food, fats, oils, firearms of war, and ammunition. World exports are defined as exports from the 15 major industrial countries. Percentage shares are based on values excluding shipments to the United States. These nations, which account for 80 percent of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan.

* Of world exports to foreign markets.

[1] Export-weighted exchange rate indexes are calculated for each supplier in each period, using official rates of exchange vis-a-vis 67 principal markets.

Briton, Ford Executive Will Address Traders

The head of the British Trade Board, Edmund Dell, is one of the featured speakers at the 63rd National Foreign Trade Council convention, to be held in New York Nov. 15-16. Another is Lee A. Iacocca, Ford Motor Co. president.

Chairman and convention keynoter is Howard Morgens of the Procter & Gamble Co. The convention will be called to order by James M. Roche, chairman of the sponsoring Council and a former board chairman of General Motors Corp.

Official Trade Briefs

This article is another in a series of reports that describes actions affecting world trade, as compiled by the Legislative and Tariff Policy Division of the International Economic Policy and Research Bureau's Office of International Trade Policy.

THE PRESIDENT

Generalized System of Preferences: President Ford issued Executive Order 11934 Aug. 31 modifying the list of products covered by the U.S. Generalized System of Preferences (GSP) and designating Portugal as an eligible GSP beneficiary. Added to the list of products eligible for preferential, duty-free treatment was **tamarind paste**. Deleted from duty-free status were **plastic sew-on fasteners, pig and hog leather, inedible gelatin** and **black and white television picture tubes** larger than 16.4 inches.

Also, action was deferred, pending information from the U.S. International Trade Commission, on requests to remove GSP eligibility for **leather wearing apparel**, certain **small electric motors, artificial flowers** and **cast iron household stoves** and **fireplace grates**.

Finally, the Executive Order, which appeared in the *Federal Register* Sept. 1, permits duty-free treatment of **bulk tequila** from Mexico, **unrefined castor oil** from Brazil and certain **cork articles**

from Portugal. These products were determined not to be produced in the United States and thus exempt from the "competitive need" limitation which removes GSP eligibility for a product from any country accounting for at least 50 percent of total U.S. imports of the product.

The President also reinstated GSP status for Costa Rican **sugar** exports, retroactively to March, because a correction of U.S. import statistics revealed that Costa Rica was not exporting to the U.S. over $26.6 million worth of sugar, thereby not rendering it ineligible for GSP treatment under the "competitive need" limitation.

Honey Case: Following an affirmative decision by the U.S. International Trade Commision on a Section 201 escape clause petition by members of the honey industry, President Ford on Aug. 28 announced his decision to deny import relief to the commercial honey producing industry. The President stated that an increase in the duty on honey would not be in the national economic interest. In his determination, the President noted that adjustment assistance is available to workers and firms who are injured by imports providing they meet the criteria established under the Trade Act of 1974.

In seeking import relief, the honey producers raised the issue of the recent three-year decline of bee colonies as it pertains to the role played by honey bees in the pollination of certain U.S. crops. In announcing his decision, the President took note of these concerns and directed the Secretary of Agriculture to conduct a study on the importance of pollination by honey bees to U.S. agriculture and consumers.

CONGRESS

Tax Reform Act—Congress passed the Tax Reform Act of 1976, H.R. 10612, on Sept. 16, after the House-Senate Conference Committee resolved the differences between the Senate and House versions. Provisions of interest to international traders include the following: the "Ribicoff Amendment" revising the present law governing what is considered to be a "finding" by the International Trade Commission (ITC) for purposes of the import relief (escape clause) procedures of the Trade Act of 1974; a provision amending section 502 (b) of the Trade Act of 1974, dealing with eligiblity for designation as a beneficiary country under the Generalized System of Preferences (GSP); amendments to certain provisions of the tax law concerning Domestic International Sales Corporations (DISCs); and a provision dealing with tax treatment of entities participating in foreign boycotts.

Escape Clause: The purpose of the "Ribicoff Amendment" is to insure that Congress has the opportunity to override Presidential decisions with regard to the imposition of import relief available under sections 201 and 406 of the Trade Act when the President does not implement a relief action recommended by the Commission. Under current law, Congress may vote to override only in those cases in which there is a majority of Commissioners agreeing on a remedy. Under the Act if a majority of Commssioners cannot agree, then a remedy agreed upon by a plurality of at least three shall be treated as the remedy "finding." In the case of a tie vote, with each group including not less than three Commissioners, 1) if the President takes action recommended by one of the groups, Congress through the override procedures may impose the relief agreed upon by the other group; or 2) if he takes action other than one recommended by either group, Congress through the override procedures may impose the relief recommended by either group.

GSP: Congress passed a provision amending section 502 (b) of the Trade Act of 1974 to deny beneficiary status under the GSP to any country which ". . . aids or abets, by granting sanctuary from prosecution to, any individual or group which has committed an act of international terrorism. . . ." The provision also permits the President to waive this requirement in the national economic interest.

DISC: Congress would amend DISC to make tax deferral benefits available only to the extent that current export gross receipts exceed 67 percent of the annual average for a designated base period, initially 1972-1975 and moving forward one year after 1979. Also, DISC benefits for sales of military equipment would be halved. These changes alter the law which allows U.S. exporters to defer the imposition of U.S. income taxes on half of their export profits by forming special corporations called DISCs.

Boycott: The Act also contains a boycott provision. A U.S. company participating in international boycotts would lose that portion of its foreign tax credit, DISC benefits for exports and tax deferrals on overseas earnings which is related to the income associated with the international boycott. Under the Act, a U.S. taxpayer participates in international boycotts if, as a condition of doing business in a country, the taxpayer agrees not to: 1) conduct business with a certain country (secondary boycott), 2) conduct business with other U.S. individuals or companies that do business in certain countries (tertiary boycott); 3) conduct business with any company whose managers or directors are of a specific nationality, race or religion; 4) hire certain employees or directors because of their nationality, religion, or race; or 5) ship or insure goods on a carrier owned, leased, or operated by a person not participating or cooperating with an international boycott. Domestic boycotts, wherein one U.S. company boycotts the goods and services of another, are not provided for in this legislation unless it can be proven that there is a connection with a foreign country or company that has required the boycott. A further provision gives taxpayers locked into boycotts by contracts negotiated before Sept. 2, 1976, until the end of 1977 to extricate themselves from these agreements. New contracts will not have this grace period. These international provisions are to apply to participation in boycotts 30 days after the date of enactment.

Bills Passed—Senate: The Senate passed S. 3084, a bill designed to strengthen and extend for three years the Export Administration Act. The Senate version included the following committee amendments: stating it is U.S. policy to utilize export controls to encourage other countries to prevent the use of their territory for acts of international **terrorism**; giving Congress 30 days to disapprove by concurrent resolution any controls on **agriculture exports** imposed for foreign policy purposes; exempting **petroleum products** refined in U.S. foreign trade zones from foreign crude oil export controls for short supply purposes; prohibiting the exportation of **horses** destined for slaughter overseas; and calling upon the President to seek agreement among nuclear exporting nations in regard to standards for such exports.

In other action, the Senate ratified the International Coffee Agreement and the International Wheat Agreement. The agreements provide for formal U.S. membership in organizations in which the U.S. has participated in previous years. The International Wheat Agreement essentially provides for a two-year extension of U.S. participation in the Wheat Trade Convention and Food Aid Convention while efforts continue to negotiate a more comprehensive agreement. The Wheat Trade Convention does not contain any provisions on maximum and minimum prices, or on purchase and supply obligations. U.S. contributions to the Food Aid Convention will remain within the range of what the U.S. would provide even without the convention.

The Coffee Agreement does not set or index prices. The agreement provides for export quotas in times of price declines and provides incentives for exporting countries to stock coffee to cover short-term supply interruptions. The Coffee Agreement is effective for a period of six years, but a clause for renewal at the end of the first three years is included.

Bills Passed—House: The House passed H.R. 14681, to provide for **termination of**

investment insurance and guarantees issued by the Overseas Private Investment Corporation in any case in which the investor makes a significant payment to an official of a foreign government to influence the actions of such government. The bill is presently before the Senate Committee on Foreign Relations.

Committee Action—Senate: The Senate Finance Committee reported favorably the following trade-related bills: H.R. 1386, providing for duty-free entry of **carillon bells** for Smith College; H.R. 8565, dealing with duty-free importation of **loose glass prisms** used in chandeliers and wall brackets; H.R. 5401, for continuation of duty-suspension on **race horses**; H.R. 11321, for the temporary suspension of duty on certain **elbow prostheses**; H.R. 12254, for the continuation of duty suspension on certain **bicycle parts**; and H.R. 7727, for the continuation of duty suspension on certain **silk yarns**. Still pending Committee action is H.R. 11605, to suspend until June 30, 1978, the rate of duty on **mattress blanks** of rubber latex.

The Senate Committee on Foreign Relations ordered favorably reported S. 1439, the Export Reorganization Act, which would reoorganize certain export functions of the federal government particularly with respect to nuclear safeguards. The Joint Committee on Atomic Energy, however, voted to oppose S. 1439.

Hearings—Senate: The Subcommittee on International Trade of the Senate Finance Committee held hearings concerning extension of the President's authority to waive the freedom of emigration requirement of the Trade Act of 1974. Arthur Downey, Deputy Assistant Secretary of Commerce for East-West Trade, testified.

The Committee on Banking, Housing and Urban Affairs held joint hearings with the Finance Committee's Subcommittee on International Finance on H.R. 13953, authorizing U.S. acceptance of fundamental changes in the Articles of Agreement of the International Monetary Fund, and authorizing U.S. consent to an increase in its quota in the fund. The hearings were recessed subject to call.

Committee Action—House: The House Committee on International Relations reported favorably on H.R. 7665 and H.R. 15377, to extend the Export Administration Act of 1969, and adopted several amendments thereto. Among them was an Arab boycott amendent which would prohibit secondary and tertiary boycotts. The amendment requires a report to the Secretary of Commerce of any such boycott requests and further requires the publication of these requests by the Secretary. Also adopted was an amendment designed to control the export of nuclear materials and equipment, the thrust of which is to maintain U.S. control of the reprocessing of nuclear material and to provide that future export agreements for nuclear material and devices include reprocessing agreements.

Other amendments were adopted to exclude from quantitative restrictions **petroleum products** refined from foreign crude oil in Foreign Trade Zones; to permit the export of **agricultural products** purchased by a foreign country but stored in the U.S.; and to prohibit the use of AID funds to construct or operate a nuclear power plant in any foreign country. The House-Senate conference committee will meet to resolve differences between the House version and S. 3084 passed by the Senate (reported previously on page 23).

The House Ways and Means Committee passed a resolution requesting the ITC, pursuant to section 332 of the Tariff Act of 1930, to conduct a study of the production of **solid state watches** in the U.S. with reference to enactment of H.R. 14600, a bill to provide for the reclassification and imposition of higher duties on imports of such watches. This action was taken at the recommendation of the Subcommittee on Trade, following a markup session they held on bills to change the import treatment of such watches and of **flourspar** (H.R. 14600 and H.R. 14599, respectively). The Subcommittee, while recommending the resolution, voted to pass over the bills.

The full committee also passed over H.R. 15357, to amend the Tariff Schedules to require proof of liability insurance for automobiles entering into the U.S. for personal use by non-resident and foreign government personnel. This bill previously had been approved by the Trade Subcommittee.

Other bills considered by the Trade Subcommittee and reported favorably to the full committee, where action is still pending, include: 1) H.Con.Res. 733, urging the President to negotiate agreements limiting imports of canned mushrooms and, if agreements are not obtained within 90 days after negotiations begin, urging the ITC to reopen the mushroom import relief case and to determine the measures necessary to remedy whatever serious injury is found to domestic mushroom processors; 2) H.R. 11429, to repeal the provisions of tariff items 806.30 and 807.00 which permit duties to be paid only on the foreign value added on imports of metal articles of U.S. origin and of products assembled abroad containing U.S. components, as amended to repeal item 807.00 only as it applies to **textiles, apparel, and gloves**; and 3) a resolution requesting the ITC to conduct a study under the provisions of section 332 of the Trade Act of 1930 of the operation and economic effects of items 806.30 and 807.00.

The Subcommittee on Oversight and Investigation of the House Committee on Interstate and Foreign Commerce approved for full Committee consideration a report entitled, "The Arab Boycott and American Business." Responding to the report, Secretary of Commerce Richardson noted seven steps that "clearly reflect" Departmental policy to implement anti-boycott law "fully and vigorously."

New Legislation: In the second session of the 94th Congress, 174 trade and related bills have been introduced. Bills not previously reported in this column include: H.R. 15198 and H.R. 15379, to impose quantitative limitations on the importation of **mushrooms** into the U.S.; H.R. 15262, to provide for certain import restrictions against enterprises engaged in prohibited **whaling** activities; H.R. 15331 and H.R. 15362, to require that imported **palm oil products** made wholly or in part of imported palm oil be labeled, to provide for the inspection of imported palm oil and palm oil products, and to require that such imports comply with certain minimum standards of sanitation; H.R. 15357, to amend the Tariff Schedules of the U.S. to require proof of liability insurance for autos entered into the U.S. for personal use by nonresidents and foreign government personnel; H.R. 15369, to increase the tariff on **candles and tapers**; H.R. 15377, to amend the Export Administration Act of 1969.

Also, H.R. 15391, to amend the **meat** import law in order to limit the quantity of certain prepared or preserved beef and veal which may be imported into the U.S. after 1976; H.Con.Res. 715, to express the sense of Congress that the President should provide, pursuant to section 203 of the Trade Act of 1974, effective import relief to remedy the serious injury being caused to the domestic **non-rubber footwear** industry by increased imports; H.Con.Res. 733, to express the sense of the Congress with respect to the importation of **canned mushrooms** into the U.S.; H.Res. 1480, calling upon the President to terminate the 1972 agreement with the Soviet Union regarding certain maritime matters.

THIS MONTH . . .

- **Traders considered in Tax Reform Act.**
- **President modifies GSP.**
- **Treasury acts on auto dumping.**

if that Government persists in its refusal to abide by the provisions that a proportion of the cargo covered in the instrument be transported in U.S. vessels; and S. 3766, to amend the Export Administration Act of 1969 to prohibit the exportation of **horses** intended for slaughter.

TREASURY DEPARTMENT

Antidumping Cases: The Treasury Department has announced final determinations in its dumping investigations of **automobile imports.** Of a total of 28 separate investigations, five were finally terminated (Honda, Nissan, Toyota, Porsche and Rolls Royce) because no sales at less-than-fair-value were found. The remaining 23 cases were discontinued pursuant to Treasury regulations which authorize such action whenever the Secretary concludes that continuation of an investigation is no longer appropriate. The discontinuance decisions were based upon the receipt by Tresaury of certain commitments from foreign producers regarding future prices. Prices of these 23 manufacturers will be monitored by Treasury during the next two years to be certain that the price commitments are being honored.

The Department has announced its determination that **portland hydraulic cement** from Mexico (not including nonstaining white cement or cement sold by Cementos Mexicanos and Cementos de Chihuahua) is being sold at less-than-fair-value (LTFV) within the meaning of the Antidumping Act of 1921, as amended. An affirmative finding also has been made regarding the alleged sales at LTFV of **knitting machinery for ladies' seamless hosiery** from Italy. Both cases are being referred to the International Trade Commission for injury investigations. Should the Commission find injury, dumping duties will be assessed. The Department made a final determination that **industrial vehicle tires** imported from Canada are not being sold at LTFV.

The Department also has given notice that it will extend for three months the investigation period in the antidumping investigation of **clear sheet glass** from Romania, making a tentative finding on the issue of sales at LTFV due on Jan. 8, 1977.

Treasury has made formal dumping findings on imports from Japan of **acrylic sheet** (except that produced by Mitsubishi Rayon) and of **tapered roller bearings.**

Finally, antidumping proceedings have been initiated concerning **pressure sensitive tape** from Germany, in response to a petition by 3M Co., alleging sales below costs. Investigation of the same product imported from Italy was announced in May. U.S. imports of the subject merchandise from Germany were valued at $4.6 million in 1975.

Countervailing Duties: The Department has made a final affirmative determination that bounties or grants within the meaning of the Countervailing Duty Law are being paid on imports of **iron or steel cap screws,** ¼ inch in diameter and over, from Italy. The bounties or grants are in the form of rebates of the basic tax rates under Italian Law 639. A countervailing duty of about 2.4 percent ad valorem will be applied.

A similar finding was made with respect to imports from Canada of certain **glass beads** made by Canasphere Industries, Ltd., Moose Jaw, Saskatchewan. Benefits to Canasphere include a grant from the Federal Department of Regional Assistance and an interest-free loan from the Saskatchewan Economic Development Corp. The net amount of the bounties or grants has been estimated at 1.9 perment ad valorem and a countervailing duty in that amount will be applied.

The Department also announced a final determination that the net amount of the bounty or grant paid on exports of **X-radial steel belted tires,** manufactured by Michelin Tire Manufacturing Co. of Canada, Ltd. was 4.195 percent during 1974 and 2.513 percent during 1975 of the f.o.b. value of each tire. Countervailing duties in these amounts will be collected on imports made during 1974 and 1975, respectively. The estimation of bounties being paid in 1976 also is 2.513 percent and countervailing duty in that amount will be collected until the final determination is made for 1976. The original announcement of a finding of bounties or grants was made in 1973.

LABOR DEPARTMENT

Adjustment Assistance: The Department has certified workers at a number of firms as eligible to apply for trade adjustment assistance. These workers have been or may become unemployed as a result of increased imports. The workers certified (numbers where available are approximate) are or have been employees of the following firms: White Pine Copper Co., White Pine, Mich. (**refined copper,** 1600; Washburn Wire Co., New York (**quality spring steel**) 225; Rud-Shaw Clothing, Brooklyn (**men's suit coats, sport clothes**) 60; Knoxville Glove Co., Knoxville, Tenn. (**cotton and leather work gloves**) 75; Teledyne Pittsburgh Tool Steel, Monaca, Pa. (**tool steel**) 35; Advance Mfg. Co., Cleveland (**tools, dies, jigs, and fixtures**) 30; Brown Shoe Co., Fredericktown, Mo. (**men's and children's leather shoes**) 210; Republic Steel Corp., Massillon, Ohio (**stainless and specialty steel**) 65; Motorola, Inc., Quincy, Ill. (**color televisions**) 1200; Southern Screw Co., Statesville, N.C. (**screws**) 740; Strongwear Pants Co., Inc., Easton, Pa. (**men's slacks**) 70; William H. Haskell Mfg. Co., Pawtucket, R.I. (**stainless steel fasteners**) 100; C. F. Hathaway Co., Inc., Lowell, Mass. (**men's dress shirts**) 60; Crown Clothing Co., Vineland, N.J. (**men's and boy's suit coats and sport coats**) 40; Chico Sportswear Inc., Elizabeth, N.J. (**men's leisure jackets and outerwear**) 20; Station Street Corp., Bedford, Maine (**men's suits and sport coats**) 30; Jay Garment Co.: Clarksville, Tenn., (**men's permanent press work shirts and one-piece work suits and jumpsuits**), Portland, Ind. (**men's permanent press jeans and work pants**) 380; MLM Sportswear, Inc., Philadelphia (**men's sport coats, suit coats**); Marshall Ray Corp., Troy, N.Y. (**men's sport coats and leisure suits**) 125; Sweda International, Clifton, N.J. (**computers and peripheral equipment**) 20.

The Department denied petitions for trade adjustment assistance for workers of the following companies: San Toro Mfg. Co., Fall River, Mass. (**men's sport coats, suit coats and leisure jackets**) 145; Stafford Clothing Mfg. Co., Fall River, Mass. (**women's coats**) 35; Chicopee Coat Co., Chicopee, Mass. (**women's coats**) 40; Lawrence Garment Co., Lawrence, Mass. (**women's coats**) 65; Massillon Spring and Rivet Corp., Massillon, Ohio (**specialty U bolts**); Wesco Industries Corp., Plainview, N.Y. (**stop motion devices for circular knitting machines**); Teledyne Efficient Industries, Independence, Ohio (**tools, dies, jigs and fixtures**) 80; Atlas Bolt and Screw Co., Cleveland (**screws**); Scovill Mfg. Co., Newark (**slide fasteners and parts**) 180; Tracey Fashions, Chambersburg, Pa. (**pant suits, dresses, skirts, and jump suits**), 130; Wrought Washer Mfg. Inc., Wheatland, Pa. (**washers**) 15; William H. Ottemiller Co., York, Pa. (**special fasteners**); Lewis Weiner Industries, Inc., Long Island City, N.Y. (**metal and plastic zipper chain, complete zippers**) 75; Gross Galesburg Co., Galesburg, Ill. (**work clothing, grass catchers**) 55; Brainard Rivet Co., Girard, Ohio (**cold-headed solid fasteners**) 30; Mayflower Coat Mfg. Co., Brockton, Mass. (**men's all-weather coats**) 25; Wear Well Trouser Co., Worcester, Mass. (**men's dress trousers**) 20; Hoover Seng Co., Los Angeles (**metal frames for sofa beds**); Standard Locknut and Lockwasher, Inc., Carmel, Ind. (**locknuts, lockwashers, and bearings**); Essex Mfg. Co., Fall River, Mass. (**men's and women's sport jackets**) 50; AVC Modulus Corp., Gary, Ind. (**industrial ferrous fasteners**) 40; Redi-Bolt, Inc. (Div. of Medalist Industries), East Chicago, Ind., (**bolts, expanded metal items**) 20; B. W. Freeman Heel Co., Inc., Owensville, Mo. (**heel and sole combinations**) 25; Lyn-Flex Freeman, Owensville, Mo. (**shoe components**) 5; Fisher Corp., Milney, Pa. (**electronic components**); Industrial Mica Co., Englewood, N.J. (**mica products**).

The Department has revised an earlier determination and certified approximately

170 former workers producing color picture tubes at the GTE Sylvania, Inc. plant in Seneca Falls, N.Y. eligible to apply for adjustment assistance. After a May 13 determination of ineligibility to apply, a further investigation revealed that the Seneca Falls plant output was integrated into GTE Sylvania's production of color TV sets. Increased imports of color TVs in recent years were found to be responsible for decreased production of color picture tubes and the concomitant employment declines at the plant. The certification provides that all workers who became separated from employment on or after Feb. 4, 1975, are eligible to apply for adjustment assistance.

Investigations: Pursuant to petitions for adjustment assistance filed during the period July 22-Aug. 5, the Labor Department has initiated a series of investigations to determine the eligibility of workers at 14 plants in seven states. Of the total 14, five were from the **clothing** industry, three from the **shoe** industry, and three from the **automobile** industry. The remaining three were submitted on behalf of workers in the **TV** industry, in the **structural steel and steel rail transporting** industry and in the **sale and installation of auto stereo radios, auto speakers and home electronics entertainment equipment.**

Report on the Round Stainless Steel Wire Industry: A Labor Department study, conducted under section 224 of the Trade Act of 1974, indicates that approximately 750 workers in the **round stainless steel wire industry** may be eligible to apply for adjustment assistance over the next year. The Department estimates that approximately 600 wire production workers may apply for adjustment assistance at plants which have already been certified eligible, as well as an estimated 150 from smaller, more specialized firms who may apply for certification. The states mainly affected are Pennsylvania, New York, Maryland, and Indiana. This report was issued in connection with the ITC escape clause case on the subject product, in which the Commission determined that increased imports were not a substantial cause of serious injury or the threat thereof to the domestic industry (see Trade Briefs, July 19). A comparable report, regarding assistance for firms, was issued by the Commerce Department.

INTERNATIONAL TRADE COMMISSION

Antidumping Cases: The Commission has determined by a 6-0 vote that no U.S. industry is being injured by imports of **Alpine ski bindings and parts** thereof, from Austria, Switzerland, and West Germany. The determination was rendered pursuant to an ITC investigation begun following a May finding by the Treasury Department that such bindings and parts imported from the above-mentioned countries were being or were likely to be sold at less-than-fair-value (LTFV). The negative finding means that no dumping duties will be assessed.

Pursuant to Treasury's determination that **knitting machines for ladies seamless hosiery** from Italy are being, or are likely to be, sold at LTFV, the ITC instituted an investigation to determine whether a U.S. industry is being injured thereby. A public hearing in connection with the investigation will be held Oct. 12 at the U.S. International Trade Commission, 701 E Street, NW., Washington, D.C. 20436. Requests to appear should be received by the Secretary, in writing, no later than noon on Oct. 7.

Import Relief Investigation: The Commission held hearings in Los Angeles and Washington, D.C. on Aug. 24 and 31, respectively, pursuant to an ITC investigation instituted under section 201 (b) of the Trade Act of 1974, to determine whether certain **plant hangers** and **beads** are being imported into the U.S. in such increased quantities as to be a substantial cause of serious injury, or threat thereof to a domestic industry producing a like or competitive article. The Commission's final report on this 15th Trade Act "escape clause" case, is due by Dec. 22.

Section 337—Unfair Trade Practices: The Commission, on Sept. 7, followed the presiding officer's recommendation and denied a request for temporary relief in a case involving alleged unfair methods of competition and unfair acts in the importation of crude and/or prepared **chicory root** in the U.S. The investigation into the request for permanent relief under section 337 of the Tariff Act of 1930, as amended, will proceed as expeditiously as possible.

In another section 337 action, the presiding officer recommended that the Commission grant the motion of the investigative staff to terminate the investigation regarding **dry wall screws.**

The Commission also has recently instituted a section 337 investigation in response to a complaint alleging unfair methods of competition and unfair acts in the importation and sale in the U.S. of certain **exercising devices.** The complaint alleges specifically that such articles are covered by certain claims of U.S. patent no. 3,743,280, and requests that the imports in question be excluded from entry into the U.S.

Dried Milk Mixture Report: At the request of the President, under the provisions of section 22 of the Agriculture Adjustment Act, the ITC has prepared a report on whether imports of dried milk mixtures were interfering with the Agriculture Department's price support program for milk. Four of the six Commissioners determined that imports of such mixtures are causing or are likely to cause such interference or to "reduce substantially the amount of products processed in the United States from domestic milk." The four Commissioners recommended a modification of the description of dried milk mixtures which were assigned a zero pound quota so as to restrict only part of such mixtures and thereby permit the continuation of historical trade in articles or mixtures not adversely affecting the milk program.

Chemical Reports: The ITC has indicated that it will continue publishing a series of reports on **synthetic organic chemicals,** despite a vote by the Commission earlier this year to discontinue the reports. The series of reports consists of production and sales reports on all synthetic organic chemicals, an annual report on the importation of benzenoid chemicals, and monthly reports on the production of 100 key synthetic organic chemicals. As the reports are widely used by both government and industry, numerous requests to continue their publication have been received.

INTERNATIONAL

Safeguards: The Australian Minister for Industry and Commerce and the Minister for Business and Consumer Affairs announced the imposition of an absolute import quota of 20,000 units on **chest freezers** of up to 350 liters capacity. The restriction applies to all imports of the subject product other than those provided for under the New Zealand-Australia Free Trade Agreement (NAFTA).

Australia has also imposed tariff-rate quotas on imports of **plywood,** to be applied from July 1 until June 1977. Imports of plywood of a thickness exceeding 5.5 mm. but not over 23 mm. will be limited to 13,000 cubic meters during the above period. Imports, other than those from New Zealand, exceeding this quota will be subject to a temporary additional duty. Neither plywood nor freezers are bound by Australian GATT schedules.

Foreign Anti-Dumping Actions: An investigation has been initiated under section 13 (1) of the Canadian Anti-dumping Act into the alleged injurious dumping into Canada of certain **surgical gloves** originating in the U.S. and U.K.

In another Canadian action, the Anti-dumping tribunal found that the dumping of **gasoline-powered chain saws** (manufactured by McCulloch Corp. of Los Angeles and Beairdpoulan, a division of Emerson Electric Co., Shreveport, La.) into Canada is causing material injury to the Canadian production of like goods.

In Australia, a finding of a prima facie case of dumping with injury has been made in relation to imports of **vinyl acetate monomer** from the U.S. An investigation of the case is currently under way.

EDP SHOW IN STOCKHOLM—*Mario Guzzetti (left) of Perkin-Elmer, Interdata Div., explains firm's minicomputer system to Hans Rallfors (second left), President of Swedish Data Assn., and Walter Stadtler (center), U.S. Trade Center Director.*

SCANDINAVIANS PROVE CONTINUING INTEREST IN U.S. COMPUTERS

Scandinavian users and representatives of data processing equipment again proved their interest in U.S. computers and peripherals during a recent Trade Center show in Stockholm. The 1976 event, which followed by just 14 months the Center's record-setting COMPUTER '75, generated $1.6 million in immediate sales and a 12-month projection of $23.5 million.

The major trend in the Scandinavian market, according to some of the participants, is likely to be an increasing emphasis on minicomputers, intelligent terminals, and software. As end users increasingly incorporate minicomputers into their production processes and offices, demand for peripherals will mushroom. Local or third country competitors are few, accounting for only about 10 percent of the market. Generally, price is less important than technology, system packaging, and servicing. Chief third country suppliers are British, German, Dutch, Italian, French, Norwegian and Danish. No major shifts in the competitive situation based on price are seen.

In addition to minicomputers and intelligent terminals, the following products offer favorable sales potential: printing terminals, display and video terminals, disk and cassette systems, multiplexers, keyboards, microprocessors, digitals, duplex modems, punch card and paper type readers, core memories, communications switches, and marginally, paper tape and punchers.

The fast-moving pace of EDP hardware and software developments and the increasing number of companies wishing to participate in computer events at the Trade Center—65 exhibitors in this year's show—are positive indications of the desirability of future exhibitions. The Center's next EDP show, scheduled for October 1977, will feature minicomputers.

Exhibitors See Gain In Sales Of Equipment As Germans Aim At Noise Abatement

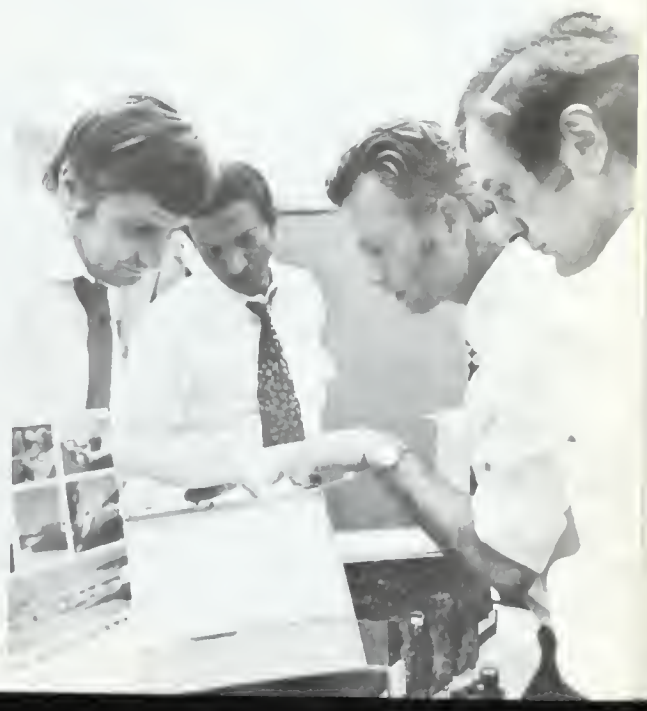
German industry's commitment to solving noise and vibration problems is reflected in its estimated 13 to 15 percent current annual increase in spending on such solutions. Also reflecting this commitment, some 550 industrialists came to the Frankfurt U.S. Trade Center recently to view an exhibition of instruments, materials, equipment, systems and accessories for just such use—analyzing and controlling noise and vibration.

A technical seminar, an additional feature with opening presentation by Dr. Walter Jeiter of the German Ministry of Labor, drew a record audience. Frankfurt's concurrent International Chemical Exhibition—ACHEMA—proved to be a valuable complement to the Trade Center event, as many ACHEMA visitors pooled taxis from the fairgrounds to attend the U.S. exhibition. One old-to-market veteran of six previous Trade Center shows described this one as "the most profitable Center event my company has yet participated in."

The exhibitors expect the German market to expand during the next two years, and see no indication of deterioration in the price competitiveness of most U.S. products. Technological superiority exists more in the monitoring, analysis and correction systems than in individual products, and exhibitors see no reason for U.S. manufacturers of such analytical systems to lose their leadership in Germany within the next few years. Exhibitors also feel that while German equality with U.S. products might be achieved in noise abatement materials, advantages would still remain with U.S. suppliers because of the relatively higher price of raw materials for this industry in Germany than in the United States.

Sales booked by the 13 participants and projected for the next year amounted to $8.8 million. Two German agents appointed during the exhibition are planning to use the Trade Center facilities later this year for between show promotions of their newly acquired U.S. product lines.

VIBRATION CONTROL—*At U.S. show in Frankfurt, L. Miedel (left) and H. Gopal (next), Endevco Corp., explain to visitors new miniature accelerometer with integral electronics for vibration measurements on light weight structures.*



MEDEX '76, TEHRAN—*Exhibitor Thomas E. Dodge of Medrad, Inc., explains angiographic injectors to Iranians at U.S. Trade Center's medical equipment show.*

Iran's Increased Spending For Health Care Spurs U.S. Medical Equipment Sales

The Government of Iran is spending increasingly to upgrade and expand its health care systems, and the Iranian private medical sector also is expanding rapidly. U.S. companies that participated in the MEDEX '76 U.S. Trade Center show in Tehran found good prospects for sales of medical products and equipment.

Of special significance during the recent event was the large number of agency contracts concluded. The many new products displayed by the 23 firms were of particular interest to importers of medical equipment, and each exhibitor seeking representation could choose from several applicants. By show's end, 15 agents had been signed and three were under negotiation. Floor sales reached $936,000; 12-month projections, $14.7 million.

End users appeared unconcerned with prices for the generally high-technology equipment on display. Given the relatively low duty, mostly 10 percent c.i.f. on medical equipment and 15 percent on dental, U.S. products are generally competitive with those of third-country suppliers. With only a few exceptions, buyers—especially Iranian medical personnel trained in the United States—tend to opt for U.S. equipment because they believe that the quality, durability, and dependability are superior.

With some exceptions, U.S. equipment enjoys a considerable technological advantage in the market. Of great interest locally are all forms that represent labor savings in terms of skilled medical personnel. Clinical analyzing items were clearly the stars of this show.

There is virtually no domestic production of medical equipment in Iran and imports during 1975 were well in excess of $320 million—roughly three and a half times the 1972 level. The government has budgeted for an expansion of hospital beds from the current 45,000 to more than 70,000 by 1980. Although it recently discontinued making low-interest loans to private doctors wishing to build their own hospitals, the expansion and upgrading of existing private facilities coupled with ongoing government programs provide good potential for American suppliers for at least the next five years.

Exhibition Introduces British Market To U.S. Producers Of Auto Service Equipment

An exhibition at the U.S. Trade Center in London has introduced the British market to American producers of automotive service equipment and supplies.

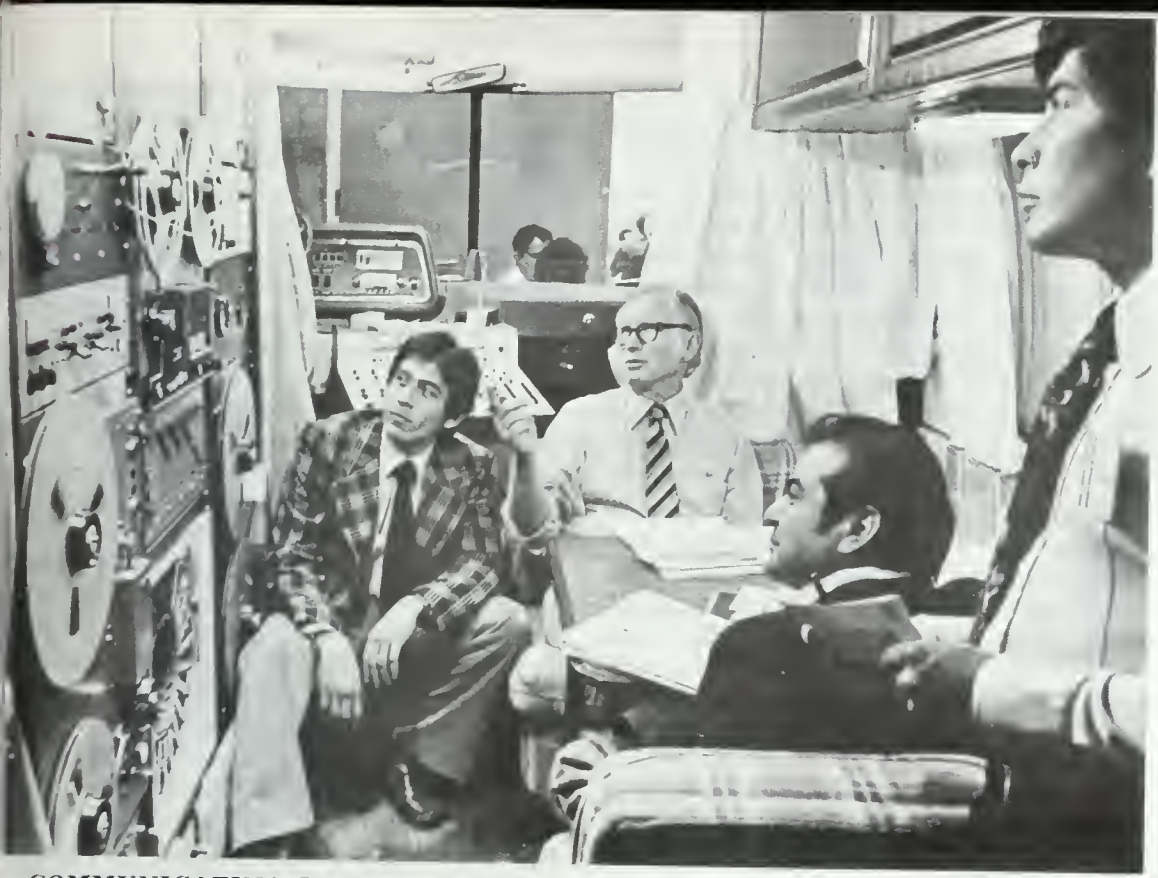
Although as recently as 1974 U.K. imports of U.S. service equipment were statistically negligible, the exhibition earlier this year generated $1,244,280 in off-the-floor sales, with an estimated $28,811,000 expected to follow within 12 months. In addition, ten sales representation agreements were signed during the event, with 38 more under negotiation, indicating that the American industry intends to take and hold a good share of the U.K. market for years to come.

The 26 U.S. exhibitors, 24 of which were new-to-market, all reported achievement of their primary objectives. Some success stories, however, stood out from the rest. Auto-Steam Inc., exhibiting outside the United States for the first time, found a licensee for the firm's unique steam-cleaning unit for vehicle interiors, sold $1 million during the show and projected $3,120,000 for the next year. But the show's star exhibitor was Specialty Tools Inc., which promoted a line of hand tools with deceptively simple design alterations that made them easier to use. Specialty's "better mousetraps" caused quite a bit of excitement, which led to the appointment of a European distributor, a first-order of $500,000 and a year's projection of $10 million.

Although legislation has not yet been passed concerning emission control in the United Kingdom, action is expected soon; thus, exhaust emission control equipment is one of the products considered to have the best potential. Others are good quality hand tools, particularly those of innovative design; automotive cleaning equipment, especially for vehicle interiors; and automatic transmission test and maintenance equipment. Car care products, exhaust fabrication equipment, automotive brake shop equipment, cranes, hoists and winches, battery chargers, and wheel balancing and alignment equipment are said to offer moderate potential.

With the high cost of automotive maintenance and repair in the United Kingdom, the market appears to be moving toward highly sophisticated diagnostic and maintenance equipment for large automotive service centers and garages, and products that can be sold through service centers and the larger multi-outlet retail stores to do-it-yourself mechanics.

QUICK CHANGE—*Huth Manufacturing Co., at London U.S. Trade Center's exhibition of automotive service equipment and supplies, displayed a machine capable of bending an exhaust pipe from straight tubing in a matter of minutes.*



COMMUNICATING IN MEXICO—*At U.S. Trade Center, Gordon McKechnie, President of VIF Int'l, discusses his automated radio station with a potential agent. McKechnie's exhibit is mounted in his 45-ft. GM van which he drove down for the show—perhaps the most unusual "booth" ever seen in a Trade Center event.*

RECORDING EQUIPMENT STARS AT MEXICAN U.S. COMMUNICATIONS SHOW

The professional audio recording equipment exhibited recently by Accurate Sound Corp. of Redwood City, Calif., was one of the "best draws in the hall" during a recent U.S. Trade Center show in Mexico City. The firm's booth was constantly crowded with visitors. Company president Ronald M. Newdoll termed the show a good one and said that he would "be back."

Radio, television, telecommunications, and cinema equipment and technology were the focus of the BROAD/COMM '76 exhibition and seminar. Best U.S. export opportunities are for products with wide application throughout the Mexican communications industry, at a high or intermediate technical level, as the simpler products are manufactured domestically.

Mexico has 670 AM and FM radio stations, all under private ownership. About 90 percent of the equipment for these stations comes from the United States. The country has 78 TV stations, and will continue to fulfill its own requirements for TV sets. There are at present three million telephones.

Pricing was not judged to be a major consideration by the exhibitors, who believed that technical capability and service facilities were more important in making sales. Moreover, U.S. proximity to the Mexican market is an important factor from the point of competitive pricing, delivery, & spare parts availability.

Many exhibitors noted competition from foreign countries, particularly Japan, U.K., Netherlands, Germany, France, Sweden, and Italy, but tended not to over-emphasize its importance in the Mexican market.

The communications industry is expected to continue to be a top performer in the economy, achieving a 12 percent annual growth rate for the foreseeable future. With an estimated 85 percent of the import market, U.S. manufacturers have a decided edge in Mexico, but more interest should pay off in increased sales, even though the import licensing system often is cited as a time-consuming barrier. Currently, a license is required for all communications equipment and instruments as well as for spare parts. Licenses are not granted if the same or a similar article is manufactured domestically, unless price differences are significant or shortages exist.

The 29 participants representing 39 exhibitors expect 12-month sales to result in a $4.4 million total. Six representation agreements were signed during the event.

Security Devices Sell Well At Paris Trade Center Event

Protection of property, persons, and privacy is a growth industry with good opportunities for U.S. exporters in France. This was demonstrated recently by an exhibition of industrial and commercial security equipment at the U.S. Trade Center in Paris.

Almost all of the 43 exhibitors, 26 of them approaching the European market for the first time, projected sales within the next 12 months—more than $6 million in all. The exhibition confirmed expanding sales potential for a variety of security products, including bullet and blast proof clothing, surveillance cameras, and counter phone-tap instrumentation and technology.

After the exhibition opened, articles in such major daily newspapers as *Le Figaro* and *France Soir*, together with radio and TV coverage, swelled visitor traffic during the busy show's last two days. As a result of contacts made during the exhibition, the 26 companies seeking representation expect to sign 56 agreements within the next 12 months, many of them outside France.

FOCUSING ON SECURITY—*Hans Schirmer, President of Schirmer National Co. (right), is presenting to visitors details of his new-to-market firm's security camera systems, during Paris U.S. Trade Center protection equipment show.*

SALES TO AUSTRALIA HINGE ON BEGINNING, STRENGTH OF LONG-AWAITED UPTURN

The value of imports has held up well through Australia's worst economic depression since World War II, but the FY 76 volume was down about 15 percent from the 1974 peak. The prospect for significant 1977 increases in real terms depends upon the beginning and strength of Australia's long-awaited economic recovery, according to this report by Robert E. Simpson, Counselor for Economic and Commercial Affairs, and Nancy M. Burkevics, Economic/Commercial Assistant, U.S. Embassy, Canberra. The data used by Simpson and Burkevics in preparing this article were collected in a joint effort by Commercial Officers of the Embassy in Canberra and constituent posts in Brisbane, Melbourne, Perth and Sydney as well as the U.S. Trade Center in Sydney.

The drop since FY 74 (Australian fiscal year is July 1-June 30) in Australian import volume has been substantial, but somewhat less than the low level of investment, consumer demand and industrial activity might have suggested. One possible reason for the comparative resistance of imports to the general economic downtrend is that internal inflation, which is continuing in 1976, has made imports more competitive and correspondingly more attractive.

This factor, plus the stronger market position which imports gained during the import surge of 1973-1975, appears partially to have offset the import-dampening effect of the domestic depression. Motor vehicle imports provide a dramatic example of this process. Despite serious difficulties in the Australian motor vehicle industry, car imports, especially from Japan, have risen sharply, providing a highly visible illustration of a process affecting other imported products.

In the case of U.S. products, this inflation-induced price improvement has been only slightly neutralized by the gradual appreciation of the U.S. dollar against the Australian dollar which has occurred under the operation of the Australian "basket of currencies" exchange rate formula since Sept. 1974.

At the same time, while the reduction in aggregate internal demand for domestic economic reasons has been partially offset by the increase in import demand for price reasons, the continuing strength of Australian exports throughout the past several years has sustained the economy's capacity to finance imports. As a result, while pressures for governmental import restrictions have been created by unemployment in a number of import-sensitive sectors, these pressures have not been reinforced by any balance of payments requirement for import austerity.

While there is little prospect of any shrinkage from the present import level during the coming year, it is not yet certain whether Australian economic recovery, especially business investment and consumer demand, will move fast enough to produce significant increases.

A July survey by U.S. Commercial Officers in major Australian commercial centers revealed a general business expectation that any 1977 import growth would be limited. Factors tending to hold down growth include the government's austere anti-inflationary budget and money supply policies, as well as the current low levels of consumer demand and industrial production. An important factor in many regions is the depressed state of agriculture, which results partly from foreign restrictions on Australian beef exports and in part from the serious drought during the past year across the southern half of Australia, which has impoverished wide areas of agriculture, especially in the States of New South Wales, Victoria and Western Australia.

Traditional source of demand

A further deterrent to rapid import expansion is lagging investment in Australia's mining sector. This industry is a major traditional source of both direct and indirect import demand. Despite liberalization of Australian foreign investment policy during the past nine months, a combination of increased development costs, uncertainties in the world mineral price outlook, and the long lead time in developing major expansion projects has delayed many new commitments in this sector. Meanwhile, other types of business investment, whether financed by domestic or by foreign capital, are at a low level pending a recovery of consumer demand and a rise in current production levels.

During the canvass numerous businessmen touched on the question of the exchange rate for the Australian dollar. The possibility of a devaluation is much on the mind of the business community, probably as a result of devaluation proposals made by various private groups in past months. Such a move would somewhat reduce the price competitiveness of imports and in the short run tend to flatten the import trend. But it should be added that the likelihood of such a move is highly doubtful. The government places the highest priority on fighting inflation, is firmly on record that it does not contemplate devaluation, and views such proposals as incompatible with its economic program.

There are also some bright spots in the import outlook. These include some tentative recent evidence that consumer demand is starting to revive, some firming in residential construction activity, and scattered signs of a pickup in industrial production. A fact of special importance for American exporters is growing evidence that the Australian economy may have completed a process of inventory liquidation. The weakening of consumer demand during the 1973-75 import boom resulted in a pile-up of inventories of imported products. These large inventories not only discouraged new orders for imports in 1975 and early 1976, but contributed importantly to the adoption of a series of special import restrictions, starting in late 1974, to bolster several Australian industries especially vulnerable to import competition. With the apparent run-down of inventories of both domestic and imported products and some simultaneous upturn in consumer demand, there is reason for hope that both domestic production and import demand will firm during the coming year.

The value of U.S. exports to Australia set a record of slightly over $US2 billion in FY 75 and fell off about 5 percent to $1.9 billion in FY 76. The U.S. market share has fluctuated in recent years. After rising to 22.2 percent in FY 74 it fell to near 20 percent in FY 76. A close look at the FY 76 figure, however, shows that the U.S. market share dropped during the first half of the year to 19.5 percent and recovered during the last half to 20.6 percent, a period in which Australia's total imports similarly dipped and recovered. On present outlook, price movements alone should cause FY 77 U.S. exports to regain the $2 billion mark reached in FY 75. If present tentative signs of Australian recovery are confirmed, they may exceed $2.25 billion.

The main components of U.S. exports to Australia consist of transport equipment and industrial machinery, which usually represent over half of the total, followed by a substantial category of industrial raw materials and supplies and varied component of consumer goods.

The first of these categories, essentially capital equipment, while down in real terms, has resisted the severe Australian investment decline surprisingly well. Moreover, the government has introduced a generous tax allowance for new investment in plant and equipment, running until June 30, 1978. But prospects for renewed growth in this category will depend largely upon the resumption of expansion in industry, mining and airline activity, all of which

are probably 6 to 12 months away.

The second category, industrial raw materials and supplies, fell off markedly in fiscal 1975 and the first half of FY 76, but showed some recovery during the final half of fiscal 1976. Sales in this category should continue to grow in fiscal 1977 as Australian industrial production recovers from the present low levels of capacity.

The final category, consumer goods, suffered from the high inventories accumulated at the end of the 1973-75 import surge. But this category appears to be benefitting from the competitive advantage it has gained because of high internal Australian prices, notwithstanding the fact that the Australian dollar has been effectively devalued about 15 percent since September 1974 in terms of the U.S. dollar.

The relative cost of local manufacturing versus import from the United States has been reversed since 1972 for numerous lines in which U.S. manufacturing subsidiaries in Australia previously dominated the local market. This reversal has undoubtedly enabled many of these U.S. products to retain market positions they gained in Australia during the 1973-75 import boom. Barring devaluation, the competitive position now held by American products appears unlikely to erode in the foreseeable future, and it seems probable that with vigorous marketing support most of them can retain this position.

The Australian inflation rate, despite some easing in April-June 1976, continues to be well above the U.S. rate. The consumer goods sector of U.S. exports may in fact be among the first to improve during 1977. Australian personal income has risen even faster than Australian internal prices during the past two years, and potential consumer demand is very high. Household expenditure is now depressed by an unusually high savings rate, but when confidence in progress against inflation and unemployment begins to mount these accumulated savings should feed a strong revival of demand.

Areas of special promise

Given the diversity of Australia's imports from the United States, it is difficult and potentially misleading to single out particular items. Review of almost 300 specific trade leads forwarded to the Department of Commerce during the past six months by the five U.S. Foreign Service posts in Australia reveals concrete buyer interest in 300-400 different items, ranging across the entire spectrum of U.S. manufactured products. The particular product areas identified by U.S. Commercial Officers for this article must therefore be regarded only as product groups in which there is a special concentration of current interest and near-term potential.

Within the broad Australian demand for American products there are two categories which seem likely to do especially well during the early stages of Australian economic recovery:

Labor-saving equipment and devices: This category includes labor-saving office machinery, including computers and related equipment, as well as a great variety of other labor-saving equipment for commercial and industrial use. Following the sharp increase in Australian wage rates during the last three years, any type of equipment which will economize on white-collar or industrial labor should enjoy a brisk market as the Australian economy begins to move up.

Consumer goods including household equipment and furnishings: While this is the sector in which many of the recent import restriction actions, such as those on textiles, have been concentrated, there are nevertheless large areas in which no special restrictions apply. With the vigorous Australian appetite for the life-style of an affluent society, and with personal income to match, there should be growing opportunities for sales of this type of equipment. Items repeatedly mentioned in discussions with the business community include recreational camping and sporting equipment, kitchenware and implements, handtools, hardware of all types, arts and craft materials, cosmetics, fashions, marine hardware, toys and games and furniture.

Some other areas of special promise are:

- Security equipment for commercial and residential use. The U.S. Trade Center had a highly successful exhibit of American equipment in this field almost three years ago, and the interest originally aroused by this exhibit has continued to grow.
- Health care and biomedical equipment. Rising demand in this area was fueled by the introduction of a universal national health program in July 1975 and by parallel ambitious programs for hospital expansion and construction. These programs have been somewhat slowed by budget cutbacks. Nevertheless, this continues to be a major field of activity, the increase in expenditure on health care will inevitably continue, and opportunities for specialized American medical equipment will remain strong.
- Despite the lagging rate of expansion in the Australian minerals sector as a whole, at least one major project has been approved in the Queensland coal industry and others are possible during the coming year. American exports of machinery and equipment are especially important to the coal industry, including everything from draglines and conveying equipment to heavy loading machinery. The level of U.S. sales for this purpose should increase as these projects proceed.
- There is optimism that at least one major new iron ore project will receive final approval and get started in Western Australia in the coming year. Such a development, taken together with continuing high levels of West Australian minerals exports, should firm up demand in that regional market despite the depressing effect of the current drought on its agricultural sector.
- Two other areas of interest, metalworking machinery, and pollution control equipment, are likely to develop more slowly as industrial production eventually revives in early or mid-1977.

SYDNEY SHOW—*Clive Permazel (right), Diamond Shamrock (Australia) Pty. Ltd., provides details of an electrochemical chlorination system from Electrode Corp. at U.S. Trade Center's recent Clean Air and Water Equipment Exhibition.*

Notwithstanding annual ups and downs, the U.S. exporter's Australian market has changed importantly since 1972. Because of differential inflation rates in the United States and Australia, the range of American products competitive on the Australian market has widened steadily while the high level of Australian exports has made it possible for Australia to afford a high continuing level of imports. Although the level of domestic and foreign investment so important to traditional U.S. capital goods sales is temporarily down, rises in consumer income are creating strong long-run markets for a variety of American products which are newly competitive in Australia. These market opportunities are inevitably drawing strong competition from Japanese and European suppliers, but Australia remains an attractive market for American manufacturers, and should offer growing opportunities as investment and industrial production begin to revive in 1977.

U.S. South Explores Iraq; Deep Freeze Giving Way To Warmth In Relations

Visitors from Mississippi, Texas, Oklahoma and Tennessee are giving Southern-style spoken American English a new prestige in the Iraqi marketplace, reports T. Patrick Killough, Commercial Officer at the U.S. Interests Section of the Belgian Embassy in Iraq. Business persons from these states have been showing special interest in the Near East nation as an untapped outlet for their firms' goods and services.

Mississippians have been especially active, with Governor William Waller leading two trade missions to Baghdad and encouraging numerous business officials throughout his state to visit the land of the Tigris and Euphrates rivers. As a result of the Mississippi missions and of the interviews and speeches which mission members gave on returning, Iraq has become known to industrial and farming leaders of the state as an unusually attractive market for local goods and services.

A Mississippi businessman named Jack Stuart, who came to Baghdad for the first time in August 1975 and is now a frequent visitor to Iraq, has begun a monthly newsletter about opportunities there; his corporate letterhead speaks of his "Offices in Morton, Mississippi, and Baghdad, Iraq." The first phase of Mississippi attention to the Mesopotamian marketplace culminated on April 3, when the National Broiler Marketing Assn. of Jackson signed a multi-million dollar contract to supply 35,000 metric tons of frozen chicken to Iraq, one of the largest such export sales in United States history.

Only the first wave

Mississippi businessmen were not the only U.S. visitors during the past year to lend activity to the bustling streets of Baghdad, Basra and Mosul. Hot on their heels into the marketplace came a Texas Agricultural Trade Mission in May, led by Lt. Governor William Hobby. Preceded by other Texans working in Iraq's oil industry, the State of Texas mission developed new leads and pursued old opportunities for possible Texas inputs into poultry, dairies, farm management, extension services, university training and technical exchanges—in fields ranging from solar energy to molecular physics and laser optics.

Other American visitors to Iraq during the past several months have included a small trade mission from Tennessee and a steady flow of bankers and oil company executives, and university presidents and deans exploring or arranging educational exchanges with Iraqi universities and government agencies.

In October 1975 products of at least ten American firms were exhibited at the important Baghdad International Fair. Absence of diplomatic relations between Iraq and the United States made it impossible to mount an official American pavilion at the 1975 fair and this will also be the case again next month. But many American firms exhibited in 1975 through their overseas subsidiaries and it appears likely that 20 or more U.S. firms will do the same this year.

For the next cool season (October-April) a number of American promotional events are being discussed for Iraq. These include visits by trade missions from the States of Pennsylvania and Illinois and both a water resources trade mission and a technical sales seminar on electronic data processing equipment to be organized by the U.S. Department of Commerce. With proper preparation and high-level participation, these missions can be solid sales successes.

For the past nine years, since the June 1967 Arab-Israeli war, diplomatic relations between the United States and Iraq have remained severed. During the first six years (1967-1973) economic relations, as well, hung by a thin thread. All but the most urgently needed U.S. spare parts and medicines were banned until July 24, 1973.

Learning to work together

In the intervening three years, in the economic and trade spheres at least, American-Iraqi relations have proven increasingly amicable and American businessmen and Iraqi buyers and decision-makers are learning to work together once again with growing confidence and mutual respect. This year, the United States and Iraqi Governments reaffirmed the validity of a 1938 U.S.-Iraqi treaty of commerce and navigation which constitutes a legal umbrella for trade and economic activities. In May, the Government of Iraq removed the long-standing ban on landing and overflight by U.S.-registry aircraft. It is now clear that there are no significant "anti-American" laws or government policies in Iraq which limit the right of American firms to compete to meet the needs of Iraqi buyers and producers. Since Iraq is a non-aligned, Socialist country, the Iraq customer in almost all cases is either a ministry, a government agency or a government-controlled corporation.

There are problems, but they are faced by all of Iraq's trading partners and not just by the United States. Iraqi oil revenues have fallen since the December 1975 nationalization of Basra Petroleum Co. and the April 1976 cutoff of crude oil pipeline shipments through Syria and Lebanon. One published article estimates that oil production fell from a daily average of 2.2 million barrels per day in November 1975 to 1.4 million barrels in April. Since Iraq does not normally permit its spending goals to become far out of line with revenue projections, there has recently been an urgent rethinking of development priorities.

The long-deferred text of the 1976-80 Economic Development Plan has yet to be published. Some projects which were nearing the stage where they could be awarded or at least put up for tender have been deferred. There is growing evidence of dissatisfaction by Iraqi economic leaders with the fixed-price turnkey approach to major projects which has characterized Iraqi planning for the past four years. But it may be early 1977 before the impact of the cutback in oil production on planning and spending will be entirely clear.

Rethink your sales strategy

Americans and others who have sold in the past to Iraq through the services of a local commission agent must now rethink their sales strategy as a result of Iraqi Law Eight of January 1976, which severely limits the freedom of maneuver and initiative previously enjoyed by local commission agents. Effective July 1, all such agreements must be in writing and explicitly approved by Iraqi authorities or the American and other foreign principals face the prospect of being blacklisted. One goal of Law Eight is to limit the size of the large commissions which agents commonly received.

Another goal is to encourage foreign manufacturers to open their own sales offices in Baghdad, staffed by their own direct-hire personnel. All Iraqi Government buyers are encouraged to deal directly with manufacturers rather than through intermediaries—when and to the extent practical. It will probably be late 1976 before this new law "shakes down." For the moment, the situation is confused and most foreign principals are being very cautious about signing agency contracts under Law Eight. American businessmen should keep in touch with the Commerce Action Group for the Middle East in the Department of Commerce for developments concerning Law Eight (call 202-377-5767).

In 1975 West Germany and Japan appear to have accounted for a total of nearly 40 percent of Iraq's estimated $5 billion in imports. In that year U.S. exports to Iraq were worth $310 million, up only slightly from $285 million the year before. An analysis of the pattern of U.S. sales from 1973 to nearly 1976 makes it seem likely that U.S. exports to Iraq will remain above $300 million so long as the economy recovers from its currrent shortfall in oil revenues. Market conditions exist for annual U.S. sales

ranging from a low of $300 million to as much as $1 billion.

But U.S. exports appear in recent months to have reached a plateau and only much greater attention to Iraq by American business will permit the United States to enjoy the 15-20 percent annual share of the market which appears possible. (The arrival in 1976 of six Boeing aircraft creates a one-time only export bulge). In 1975 Iraq became West Germany's most important Arab market. It was, however, only number six as an Arab market for American exports.

Unlike the situation in such booming markets as Iran and Saudi Arabia, American firms have not been notably successful in Iraq in winning or even trying to win their fair share of participation in major development and infrastructure propects. There have been successes, most notably the $1.1 billion Lummus-Thyssen joint venture for a turnkey petrochemicals project south of Basra. And U.S. consultancy and construction firms not active in Iraq since the 1950s and 1960s are now taking another hard look. These include Morrison-Knudsen, General Electric, TAMS and Harza Engineering.

Become active in design stage

In the remainder of 1976 and in 1977, if the American approach to the Iraqi market is to generate momentum for future growth, U.S. firms must make a conscious effort to become active in the design stage of major projects. Some major, turnkey projects (e.g., dams, integrated farms and ranches) have recently been awarded to Belgian, Yugoslav, Soviet and West German firms. These and projects yet to be signed offer considerable scope to American firms as subcontractors and suppliers of equipment and licensed technology.

A number of American firms have begun to explore possible cooperation wtih successful Eastern European contractors—particularly those from Yugoslavia, Poland and Hungary. Eastern European firms have been active in Iraq for years and have developed considerable expertise in dealing with Iraqi conditions (labor, shortage of raw materials, etc.). This expertise can greatly lessen the risks taken on by U.S. firms approaching major projects in Iraq for the first time.

Six years (1967-73) of deep freeze in U.S.-Iraqi economic and trading relations have given way to three years (1973-1976) of thaw, indeed, of growing warmth. Although U.S. exports to Iraq appear to be leveling off, this reflects sheer under-attention by American firms to Iraq rather than any obstacles the Government of Iraq places before American business. The agricultural sector of Iraq alone offers scope for $500 million per year in direct U.S. exports of food and equipment. Industry, infrastructure, electric power, transportation and other sectors also have the combined potential to take another $500 million in annual U.S. sales.

The Iraqi market exists and can be penetrated, but is not going to fly up on a magic carpet and pursue Americans. On the other hand, Americans who are willing to pursue the market, who are patient, and who learn to cooperate with local and international contractors, will probably find that the effort is cost-effective.

JAPAN'S RECOVERY HAS SOLID BASE; CONSUMERS, EXPORTERS LEAD THE WAY

Japan's long-awaited economic recovery is finally well under way, reports the U.S. Embassy in Tokyo. Led by exports, it also has a solid base in increased consumer spending.

Business profits have begun to recover, and the decline in investment in plant and equipment appears to have stopped. Industrial production, which had been rising for some months, took a solid step upwards in the first quarter of 1976, and shipments also rose, with a consequent decline in producers' inventories. Inflationary pressures have continued to subside; the increase in consumer prices remained within the 10 percent target for the fiscal year ending March 1976. The annual spring wage increases were also held under 10 percent.

Not all businesses are sharing equally in the recovery. Automobiles, sound equipment and business machines are doing particularly well; some others are lagging behind, however.

Government leaders appear content with the recovery pattern and do not expect to introduce major policy changes. A new five-year economic plan adopted by the Cabinet in May sets out generally agreed economic goals which include a scaled-down rate of growth, coupled with inflation control, an improvement in housing and welfare facilities, and a restructuring of Japanese industry toward areas of lower pollution, lower consumption of energy and materials, and higher technology.

The effects of Japan's economic recovery have not yet become apparent in the area of trade, but are expected to result in a substantial increase in imports during the course of the year. American exporters who give priority to Japan in their marketing plans and strategy should find themselves in good position to participate in the economic recovery; in a number of areas the comparative price levels in Japan and the United States will operate to U.S. advantage in the Japanese market.

Product areas where American goods are expected to benefit from improved competitiveness are marine and oceanographic equipment, automobile parts and equipment, hydraulic equipment and components, and mechanical handling equipment. Other promising product areas for exports to Japan are computers, peripherals, and data communication equipment; electronic components, pollution control and measuring equipment; analytical instruments; food processing and packaging equipment; test and measuring equipment for the electronics industry; biomedical equipment; avionics and ground support equipment; printing and graphic arts equipment; and building systems and materials.

Exhibitors at the U.S. Trade Center in five product areas over recent months —noise and vibration instrumentation equipment, computers, industrial process control instruments, nuclear instruments and accessories, and toys, games and hobbycrafts — have expressed optimism over their sales prospects in Japan.

The outlook for sales of U.S. consumer goods looks promising at this time. American products are increasingly price competitive, and the prestige-conscious Japanese consumer is often prepared to pay a premium for the "Made in U.S.A." label. Sales of U.S. consumer goods held up well during the recession, even while imports in most categories fell off.

Consumer confidence has begun to pick up during the first half of this year and is expected to accelerate further during the balance of the year as the economic recovery becomes firmly established. American suppliers should therefore benefit from increased consumer demand and replenishing of inventory by distributors and retailers.

The embassy and consulates organized nine groups totaling 574 buyers to visit American trade shows during first-half 1976—in the areas of housewares, hobby crafts, home improvement products, do-it-yourself products for the home, sporting goods and prepared foods. Final reports have not been received from all these groups, but seven of them reported combined spot and one-year projected purchases of $15.9 million.

Total U.S. agricultural exports to Japan in the October 1975-March 1976 period declined 9.6 percent in value compared with a year earlier, due in large part to a decline in U.S. export prices of wheat, soybeans and feed grains during the period. Tobacco exports to Japan have shown

significant increases, and the outlook for U.S. agricultural exports in the next six months is somewhat brighter.

Demand for livestock products is increasing, as reflected in substantially higher imports of pork, beef and veal; the rapidly expanding Japanese livestock industry will also require larger amounts of feed-stuffs to continue expansion.

Chemical problems continue to hamper citrus shipments, and U.S. cotton exports to Japan will be sharply lower than in recent years. Mid-year changes in administered prices of wheat and rice may make wheat products more expensive relative to rice, with some possible effects on U.S. shipments of wheat to Japan.

Investment developments

The Japanese Government during the six months ending March 1976 liberalized restrictions on foreign investments in three industries—information processing (including computer software), manufacture of fruit juices or fruit beverages, and manufacture of photo-sensitized materials. This completes the government's scheduled liberalization of direct investments.

Four industries have been indefinitely excluded from investment liberalization: agriculture, forestry and fishing; petroleum and petroleum products; leather products; and mining. Foreign direct investments will also continue to be restricted in transportation, utilities and banking.

In general, the long economic recession has had a negative impact on investment decisions by foreign as well as domestic investors in Japan. Consequently, new direct foreign investments during the past 30 months have lagged slightly below the earlier periods even though the government has implemented its scheduled investment liberalization policy.

Japan's overseas investments by the end of March 1975 had reached $12.7 billion, 33 percent of which was in manufacturing, 28 percent in mining, and 20 percent in services; Japan's cumulative overseas investment by the end of March 1976 is estimated at $16 billion. Asia is the leading recipient of cumulative Japanese overseas investment, with 25 percent of the total.

The cumulative amount of Japanese investment in the United States (about 20 percent of the total) is still larger than in any other country. Interest in possible investment in the United States is picking up as stateside production costs continue to decline in comparison with other countries. Volkswagen's recent decision to locate production facilities in the United States attracted substantial attention in Japan.

Officials expect Japan's overseas investment to reach $93.5 billion by the end of 1985, 36 percent of it in manufacturing and 32 percent in mining.

Calendar For World Traders

Sept. 28—Houston—Int'l Offshore Marketing Conference, Marriott Motel. Call 713-522-7871.

Sept. 29—Dearborn, Mich.—Selling and Investment seminar, Fairlane Manor. Sponsors: World Trade Club of Detroit, District Export Council. For information, Geoffrey Walser, 313-226-3650.

Sept. 29—Boston—Workshop on Int'l Regulation of Multinational Business. Call 617-542-0426.

Sept. 30—Boston—Int'l Business Center of New England's Trade Winds Roundtable and dinner meeting on Exporting and Importing, Valle's Steak House. Call 617-542-0426.

Oct. 3-5—Bryce Mountain, Va.—Seminar on Marketing Telecommunications to the Middle East. Sponsor: Institute of Technological Assessments. For information, 703-536-2144.

Oct. 3-8—Pittsburgh—First Congress of International Technology, Hilton. Organized by International Technology Institute. Call 412-795-5300.

Oct. 4—Tulsa—Seminar on Doing Business in Venezuela, Hilton Inn. Sponsors: Tulsa Chamber of Commerce, World Trade Assn., Oklahoma City International Club. Keynote speaker: H. Darwin Swett, Commercial Attache, U.S. Embassy, Caracas. For information, Lance Bohanrron, 918-585-1201.

Oct. 5—New York—FCIB Roundtable Conference on International Finance, Credit, Collection and Exchange Problems, Summit Hotel.

Oct. 5—Little Rock, Ark.—Seminar on Doing Business in Venezuela. Stephen Hall of Commerce's Office of International Marketing will speak.

Oct. 6—Murfreesboro, Tenn.—Seminar on International Business Opportunities in Latin America, Middle Tennessee State University. Thomas K. Brewer of Commerce's Office of International Marketing will speak.

Oct. 6—New York—Seminar on Export Credit Considerations, International Executives Assn.

Oct. 6—Dallas—Seminar on Doing Business in Venezuela. Stephen Hall of Commerce's Office of International Marketing will speak. For information, Richard Maxwell, 214-651-1020.

Oct. 6-7—Birmingham—Ninth Annual International Business Forum, Kahler Plaza. Sponsors: Commerce District Office, University of Alabama, World Trade Assn., District Export Council. Peter Hale, Director of Commerce Action Group for Near East, will speak.

Oct. 6-7—Chicago—Seminar on Principles and Techniques in Exporting, Holiday Inn/City Centre. Moderator: Anthony J. Buchar, Dir., Export Trade Development, C. S. Greene & Co., Inc.; former Dir., Chicago Commerce District Office.

Oct. 7—New York—International Industrial Marketing Club meeting, The Chemists Club.

Oct. 7—Memphis—Mid-South Exporters Roundtable dinner meeting, Monte's Restaurant.

Oct. 7—Houston—Seminar on Doing Business in Venezuela. Stephen Hall of Commerce's Office of International Marketing will speak.

Oct. 11-12—New York—Briefing on The Andean Common Market, American Management Associations. Speakers include Thomas K. Brewer of Commerce's Office of International Marketing.

Oct. 13—New York—Seminar on Assistance from the U.S. Department of Commerce, International Executives Assn.

Oct. 13—New York—FCIB Book Exporters Credit Group luncheon meeting, Summit Hotel.

Oct. 13-15—New York—Seminar on Opportunities in Brazil, American Management Associations.

Oct. 13-15—Ann Arbor—Seminar on Increasing Profits in Export Markets, University of Michigan Graduate School of Business Administration. For information, 313-763-1387.

Oct. 14—New York—Overseas Automotive Club luncheon meeting, Summit Hotel.

Oct. 14-15—New York—American Management Associations briefing on Nigeria. Keynote speaker: William E. Schaufele, Asst. Secretary of State for African Affairs. Other speakers include Sally Kyle Miller of Commerce's Office of International Marketing and Bonnie Henderson of the Overseas Private Investment Corp.

Oct. 19—Memphis—World Trade Club meeting, Southwestern University.

Oct. 20—Louisville—Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro Northeast.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and visits by foreign buyers and officials.

Licensing, Investment Abroad

GREECE—Group of investors is interested in joint venture or association with U.S. based firm for development and manufacture of goods requiring utilization of local raw materials and with potential marketability in the EEC, Arabic and African markets. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Dept. of Commerce, Washington, D.C. 20230. P-76748.

UNITED KINGDOM — Manufacturer of **mechanical equipment for sewage treatment, industrial waste water treatment, and water treatment by reverse osmosis,** seeks licensing agreements for manufacture of similar items. All types of effluent plant treatment equipment will be considered. Established 1830, employs 470. Markets worldwide. Frank Sanderson, Chmn. & Mng. Dir., Ames Crosta Ltd., Dawson St., Heywood, Lancashire OL10 4NF, England. P-76737.

1500 — SAUDI ARABIA — Seeks joint ventures with experienced U.S. firms to engage in **electrical engineering and contracting** to include installation of central cooling and heating systems and plumbing and sewage disposal for apartments, airports, hotels and residences. Experience in installation, maintenance and operation of electrical substations would also be helpful. It is anticipated that venture would be established with around $300,000 in equity capital. Theodore Stolber, advisor, Int'l Div., Finance Group, National Commercial Bank, P.O. Box 3555, Jidda. Telex, 40102; phone, 23794, 23122. P76732. OPIC.

1542—ECUADOR—General building contractor seeks U.S. partner experienced in **hospital construction and equipping.** Interested in participating in several Government of Ecuador tenders involving building and equipping five hospitals. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Dept. of Commerce, Washington, D.C. 20230. P-76749. OPIC.

2075—MEXICO — Firm seeks technical know-how to produce **soybean proteins** for use as extenders in milk, creams, meat and to supply nutritional value to soft drinks. Lic. Agustin Salvat, Jr., Equipo Tecpan, S.A., Miguel Angel de Quevedo #320, Mexico 21, D.F. Telephone, 905-554-2915. P-76759.

2400—PAUPA NEW GUINEA — Seeks companies to participate in **development of Vanimo timber area,** said to be largest forestry concession in PNG. Firms experienced in development of large scale forestry projects and prepared to undertake feasibility study are invited to submit proposals. Write: Exec. Dir., National Investment and Development Authority, P.O. Box 50553, Boroko, Papua New Guinea. Further details available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Dept. of Commerce, Washington, D.C. 20230. P-76729.

2800—JAPAN—Leading manufacturer of water and sewage treatment equipment in Japan is seeking unique, advanced technologies for **sewage and other sludge treatment and for extracting gas from solid industrial wastes for fuel purposes.** American partner may have no exclusive arrangements covering same line with other Japanese firms, and must have abundant experience in this field. This Tokyo based firm has sales offices in seven major cities in Japan, including Osaka. Manufacturing plant is located in Tokyo. Employees, approximately 1,200, of which nearly half are technicians. Kikuo Nasu, Dep. Mgr., Sales Headquarters, Ebara-Infilco Co., Ltd., Palaceside Bldg., 1-1, Hitotsubashi 1-chome, Chiyoda-ku, Tokyo 100. P-76738.

2800—MEXICO—Seeks joint venture and/or licensing agreement to establish plant to produce **organic or inorganic chemical products.** Foreign partner would be limited to minority share. Firm is very large, 100 percent Mexican owned wholesaler and retailer of wide range of chemicals. Wishes to diversify by manufacturing in Mexico some of products it now distributes, obtained from both Mexican and foreign sources. Company has five branches throughout Mexico and will consider any location in country for proposed plant. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Dept. of Commerce, Washington, D.C. 20230. WTDR. P-76755.

2821—MEXICO—Seeks U.S. technology for manufacture of **epoxy resins and polyurethane.** Firm produces synthetic resins and formaldehyde and imports several other chemical products. It reports yearly sales volume of slightly over $3 million. Ing. Miguel Garcia Maldonado, Industrial Quimica Delgar, S.A., Aptdo. Postal 121, San Luis Potosi, SLP. Telephone, city code 481-27130. P-76756. WTDR.

2834, 2844, 2899—UNITED KINGDOM—Seeks to manufacture and distribute **unique toiletries, semi-ethicals and industrial chemicals** on reciprocal basis. Products to be considered must have nationwide distribution in U.S. and proven growth potential. Firm is a leading brand name in U.K. toiletries and exports its products worldwide. Has 1,500 employees, sales force of 100. H. T. Langdon, Sec., Cussons Group Ltd., Kersal Vale, Manchester M7 0GL, England. P-76757.

2879—PAKISTAN — Seeks joint venture arrangement with U.S. manufacturer of agricultural chemicals who can provide technical know-how for **formulation and processing of pesticides, weed killers, fungicides** and related products and who woud be willing to grant Pakistani partner agency representation for U.S. firm's products in Pakistan. The Government

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

owned Pakistani company manufactures fullers earth and calcium carbonate, and is Government approved pesticides formulator. Present working capital, approximately $75,000, and firm is able to put up additional $50,000 at any time. Consumption of pesticides in Pakistan was valued at $55.6 million for fiscal years 1971 through 1974, and $36 million of this was imported. Dr. Mushtaq Ahmad, Mng. Dir., National Chemicals Pakistan Ltd., Kot Lakhpat, Lahore. Telephone, 359058 and 65981; cable, DURAPLAST. WTDR. P-76758. OPIC.

2891—TOGO—Seeks joint venture partner and source of technology to produce **neoprene glue** for sale to end users in Europe, Asia, Africa and Middle East. Factory is scheduled to produce 2,900 tons of glue for first three years, and will be located in free zone of Lome. There will be tax holiday for 5 years, no duty on exports, and machinery imported for use is duty free. Firm has been assured loan of CFA 176 million ($760,000) from Banque Togolaise de Developement of which CFA 65 million ($280,000) is USAID money. Ruben Adzomada, Pres., Astra Chemical Industries, 18 Avenue De Calais, BP 3371, Lome. Correspondence may be in French or English. P-76753. OPIC.

3211—MEXICO—Firm seeks joint venture for manufacture of **glass molded products.** Plant facilities will be set up in Northern Mexican State. Design and technology has been obtained. Sr. Antonio Trejo, Aptdo. Postal 15, Durango, Durango. Telephone, 181-107-73-Durango, or 905-528-6561-Mexico. P-76739.

3361, 3079—BELGIUM — Seeks to sell business in Carnieres near Charleroi which manufactures **metal colanders, kitchen utensils** and **ordnance parts such as rocket fins.** It also makes **plastic** items including **cheese graters, lazy susans, spice racks, medical accessories and ordnance parts such as grenades, fins and grenade boxes.** Business includes 480,000 sq. ft of land, and plant valued at $1.3 million including buildings, equipment and inventory. There are 50 production workers and 10 staff and clerical employees. Sales in 1974-75, $700,000; for 9 months in 1975-76, $760,000. Emile Romain, Gen. Mgr , Etablissements Simon & Denis, S.A., Avenue du Centenaire, 5, 6508 Carnieres (Hainaut). P-76733.

3448, 3523—UNITED KINGDOM — One of major agricultural cooperatives wishes to manufacture under license from American firm **metal or fiberglass bulk grain and feed storage bins.** Cooperative is also interested in prefabricated **portable metal buildings for grain storage and general farm service.** Established 1906, organization has 270 employees and 31 salesmen. Manufactures compound feedingstuffs, fertilizers, ancillary agricultural products. M. S. Horsfall, Tech. Mgr., North Eastern Farmers Ltd., Bannermill, Aberdeen AB9 2QT, Scotland. P-76750.

3451 — SWITZERLAND — Producer of fuses and other ordnance items seeks U.S. manufacturer of screw machine parts to **make rotors for fuses.** American company would produce rotors to specifications and drawings supplied by Swiss concern and ship finished product to Switzerland. Mr. Riesen, Degen & Co. AG, 4435 Niederdorf. Telex, 62 512 Degen CH; telephone, 061/978282. P-76740.

3523—UNITED KINGDOM — Company seeks licencing arrangements with manufacturers of **agricultural machinery and farm mechanical handling equipment, including tractor-drawn or self-powered implements in retail range of $1,000 to $20,000.** Firm currently manufactures agricultural loaders and implements, grey iron castings, forgings, stampings, open steel flooring and valves for petrochemical and general industry. Established 1946, company has 1,200 employees and markets throughout U.K .and Europe. H. Wilson, Group Mktg. Dir., MIL (Export Marketing) Ltd., Heath Town Works, Wolverhampton WY10 0QD, England. P76751.

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

3535—JAPAN—License to manufacture **dense phase, low velocity pneumatic conveying systems for handling powdered and/or pulverized products** is sought by a leading Japanese company. Firm is major manufacturer of spindles and rings for textile machines. Also produces pollution control and oil hydraulic equipment. Operates three plants, employs 965. Sales in 1975, $53 million. O. Inoh, Mgr. & Chief Eng., R&D Dept., Nippon Spindle Mfg. Co., Ltd., 2-1 Nishi-Soke, Shioe, Amagasaki City, Hyogo Prefecture 661. Cable, SPINDLE AMAGASAKI; telex, 524-2907 SPINDL J. P-76752.

3551—UNITED KINGDOM—Firm seeks licensing agreements for manufacture of **flexible packaging systems and materials.** Presently manufactures flexible packaging, heat transfer paper and dripping containers. Company employs 900, established 1948. R. C. Newbury, Mardon Flexible Packaging Ltd., P.O. Box 3, Midsomer Norton, Bath BA3 4AA, England. P-76731.

3559—SWITZERLAND — Manufacturer of **air pollution control equipment** seeks licenses. Product interests include **advanced, industrial and commercial type dust collecting and filtering systems and special industrial filters for installation on large chimneys to eliminate polluting chemicals.** Also of interest are **devices for odor control and for use in manufacturing facilities to control toxics and other gases.** Firm presently produces oil mist collectors under license by an American company. Swiss concern calls on most potential end users in Europe and could sell additional equipment to complete its product line. Francois Alesch, IPTC-Industrial Products Ltd., P.O. Box 188, 8024 Zurich. P-76741.

3567 — SWITZERLAND — Established producer of industrial heating, air conditioning and drying systems seeks licenses. Wants to manufacture **industrial stoves and ovens for use in such operations as drying, baking enameling and other surface treatments, using oils, electricity or preferably microwave and other new heating techniques.** Products should be applicable for continuous in line operation, or treatment of batches or single pieces. Swiss firm can handle application engineering and design of complete systems. W. Gasser, FAG Feuerungsbau AG, P.O. Box 8048, Zurich. P-76742.

3569, 3949—UNITED KINGDOM — Firm seeks licensing or joint venture arrangement for production of **diving systems outfit items, diving equipment and subsea technology equipment.** Company manufactures and designs dive systems, recompression chambers, diver training facilities, hyperbaric units and subsea equipment. Bruce Molland, Mng. Dir., Seaforth Perry, c/o Barry Henry & Cook, West North St., Aberdeen, Scotland. P-76730.

3585—AUSTRIA — Seeks license to produce **wind powered electric generators.** Firm presently manufactures hydro-electric power stations, gears and water clarification plants. Employs 50. Ing. Erich Koessler, Maschinenfabrik Alois Koessler, A-3151 St. Georgen. P-76734.

3621 — UNITED KINGDOM — Seeks license to manufacture **electrical inverters,** outputs between 10 and 50 KVA, with single- and three-phase applications at 240 and 450 V respectively. Would be incorporated in no break power supply systems for telecommunications and other applications as an alternative to present rotary sets. Firm currently produces no break power supplies, motor alternator sets, control and switch gear. Employs 50, annual sales $1.2 million. G. R. Dunn, Mng. Dir., Arcontrol Ltd., Borough Green, Sevenoaks, Kent TN15 8PD, England. P-76754.

3631—MEXICO—Newly formed group of local investors seek point ventures to produce **microwave ovens, dishwashers, trash compactors, garbage disposal units and hot water dispensers.** Want technical know-how in return for management and fixed fee. Partners are former high Mexican officials and are prepared to visit U.S. for talks with interested firms. Lic. Agustin Salvat, Jr., Equipo Tecpan, S.A., Miguel Angel De Quevedo 320, Mexico 21, D.F. Telephone, 905-2915. P-76735.

3679—FRANCE—Seeks license to manufacture **electronic alarm systems.** Firm specializes in electronic products and markets all types of detection systems. Also installs, repairs and maintains these products. Represents several American companies. C. Measson, Directeur General Adjoint, Anciens Etablissements Sombardier & Sapor, 30 Cours Gouffe, 13006 Marseilles. P-76744.

3679 — UNITED KINGDOM — Seeks license to manufacture **electronic and electro-mechanical equipment for hazardous areas.** Company presently makes electronic control equipment for use in petroleum retailing. Employs 50; annual

sales, $1 million. B. M. Jones, Mktg. Eng., Llewellyn Lewis Ltd., Allens Lane, Hamworthy, Poole, Dorset, England. P76743.

3728—FRANCE—Seeks licensing agreements for manufacture of any **aircraft parts, accessories or equipment.** Established 1949, employs 700. Mr. Mattei, Gen. Mgr., Ovions Hurel Dubois, 39-43, rue Grange Dame Rose, B.P. 6, 92360 Meudon La Foret. P-76736.

7011—NEPAL — Department of Tourism is seeking private foreign investment to develop **hotel and passenger cable car facility** on Shivpuri mountain eight miles north of Kathmandu. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Dept. of Commerce, Washington, D.C. 20230. P-76747. OPIC.

7011 SAUDI ARABIA—Firm seeks U.S. firm to establish **first-class hotel** on new Seaside Road in Jidda. Site for hotel is about 6,200 sq. meters. U.S. partner would perform designing, planning and construction and manage hotel on completion. Al-Hariri Establishment, P.O. Box 3190, Jidda. Cable, HARIRICO; telephone, 23984. P-76745. OPIC.

7011—SWEDEN — City of Goteborg on West Coast is encouraging development of excellent **hotel site** in center of town. Site covers approximately 17,000 sq. meters. U.S. investors sought. Sven Lindquist AB, Karl Gustafsqatan 19, S-41125 Goteborg. Telephone, 031/13 0906. P-76746.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-5361), referring to the appropriate file number.

FRANCE — Firm is seeking licensing agreement or joint-venture with U.S. firm involved in plastic processing or molding to manufacture large size **plastic components for industrial use** in U.S. French firm is dealer and manufacturer in industrial waste, metal textile, plastic materials, and plastic processor. File 3143

FRANCE—Firm wishes to find partner in U.S. to manufacture **compounds for forming bodies for generating heat from radiant luminous energy.** U.S. patent has been applied for in this material as well as for methods for preparation and applications. Material is used to produce solar captors which are said to be "very aesthetic". Material can be easily used in architecture and this possibility is such that it has obtained award of Architects Association at first solar energy exhibition in France. Firm feels that this material could be used particularly in manufacturing heating gas systems for swimming pools with solar energy. Process is used to heat any type of building—houses, etc.—as well as water tanks. File 3144

GERMANY — Well-established German firm wants to offer for production under license in U.S. its equipment which is widely used as **automatic paint and lacquer systems** for all kinds of mass produced parts. Includes industrial spraying annealing, lacquering and drying equipment consisting of various systems such as internal lacquer spray systems, automatic internal tube lacquering machines, fully automatic plant for annealing, internal lacquering and drying of tubes, atuomatic type circular and chain type lacquering machines; automatic lacquering and drying plants; internal lacquering plants for cans; and complete lines for all surface treatments, such as degreasing, powder coating or lacquering, drying or stoving, and cooling. File 3145

GERMANY — A leading manufacturing plant of solder wire and soft solder wire is interested in establishing joint venture in U.S. or acquiring existing U.S. firm of about 150 employees in **soldering** industry. File 3146

GERMANY — Manufacturer/exporter of woodworking machinery wishes to establish licensing agreement with manufacturer for its products in U.S. Products include: **double end tenoners**—two types; **automatic edge processing machines; automatic and computerized panel cutting machines; automatic panel sizing and dimensions saws.** Firm is also interested in establishing joint venture agreement with U.S. firm in same production field. File 3147

GERMANY—Firm wishes to locate U.S. licensee for manufacture of its **folding tube.** A quadrangular tube, it can be produced in one working cycle, either from spiral or from parallel tube wincing machine and shaped by a forming machine. File 3148

GERMANY — Manufacturer, distributor, exporter of cable and wire installations of flame-resistant hard PVC, is interested in locating a licensee in U.S. for manufacture in States of several types of their **trunking and related equipment.** German firm's program includes various types of trunking and accessories such as plants, strips, sockets, dividing strips. File 3149

GERMANY — Firm wants to offer for license its **peripheral computer equipment** consisting of wide range of OEM modules, such as cartridge tape transport CD-30 M; its microprocessor family; fast microprogrammable controller; credit card reader; 9 needle matrix print head; matrix printed mechanism; tractor form feed; automated ski lift system constructed from own modules; automated toll system; and its terminal systems. File 3150

GERMANY—Firm wishes to offer for production in U.S. under license its **modular pool system** that offers variety of advantages. Construction: swimming pool may be enclosed completely or as many sections as required can be removed. Material: of fiberglass, system is robust, durable and translucent and unaffected by corrosive chlorinated atmosphere. Design: low silhouette and attractive shape for economy, pool water is heated by sun's rays reducing energy bill. German firm is looking for licensees with experience in working with fiberglass or polyester for following regional markets—New England, Middle East, South East, Great Lakes, Plains and Southwest. Firm claims that over 4,000 of these pool enclosures have been sold worldwide in the last five years. File 3151

ITALY—Manufacturer of lighting signals seeks licensing agreement with his company to manufacture **light emitting diodes.** File 3152

NEW ZEALAND Manufacturer would like to get in touch with American manufacturer in producing **solar water heaters** for use as domestic and commercial hot water and domestic and commercial heating systems. File 3153

SWITZERLAND—Manufacturer offers to U.S. manufacturers of tools, rescue systems, sporting goods a novel **rescue and rope-down device** which is patented in most countries. The device, simple without detached or moving parts, is fixed on suspended polyester rope and basically serves to control speed of descent. Control is fully applied by fingertip pressure. System can also be used to evacuate injured persons or persons who have lost consciousness. Does not require any servieing and can be installed in seconds. Maximum load is one metric ton (1,000 kilos). Firm is very old and reputation good. File 3154

SWITZERLAND — Licensing opportunity is offered by firm to U.S. firms who make pressed fiberglass polyester reinforced plumbing fixtures. Products, partly made with plastic molds and dies by hand, comprise variety of **wash sinks and troughs,** as well as sturdy **letterbox** used by postal services on outer walls. Swiss firm may also be interested in a cross-licensing arrangement for suitable plastic fabricators. File 3155

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Fisheries

0919XXX—JAPAN—Seashells, especially interested in "trocas" shell. Est. annual purchase $10,000. Will sell item to button mfrs. throughout Japan. Specializes in seashells & seafoods. Annual sales $700,000. Ref.: Bank of Tokyo Semba Br., Osaka. Reply to—T. Teraoka, Mgr., Inana Shoten, Daido 4-Chome, Tennoji-ku, Osaka 543. Cable: Fkinana Osaka; tel: 06-779-7490.

Broad woven fabric mills, wool

• **22310 — GERMANY** — Government tender for tricot (100 percent pure shorn wool), 15,000 meters light grey, 15,000 meters dark grey and 16,000 meters bluish grey; pearl gabardine (pique), 45 percent shorn wool, 55 percent trade-mark polyester, 15,000 meters dark grey and 18,000 meters bluish grey. Samples of each cloth should be submitted separately from bid before Nov. 8, which is opening day for bids. Tender documents and samples can be obtained upon written request from Kliederkasse Fuer Die Bundeswehr, 5406 Koblenz, Casinostrasse 26-30, P.O.Box 7350, Bonn. Language of correspondence: German.

Men's, boys' furnishings

• **23210—GERMANY** — Procurement No. 1: 24,000 service shirts, polyester/cotton, bluish-grey, short sleeves. Procurement No. 2: 10,000 service shirts, polyester/cotton, white, short sleeves. Procurement No. 3: 30,000 service shirts, polyester/cotton, bluish grey, three different sizes of sleeves. Opening of bids for Procurement Nos. 1 and 2 is Oct. 15. Opening of bids for Procurement No. 3 is Nov. 8. Specifications and samples of each shirt and fabric available upon written request from Kleiderkasse Fuer Die Bundeswehr, Casinostrasse 26-30, P.O.Box 7350, 5406 Koblenz, Bonn. Language of correspondence: German.

Periodicals: publishing, publishing & printing

2721543—JAPAN — Periodicals of women's and girls' apparel fashion designs; est. annual purchase $20,000. Importer/distr. of fashion magazines & other publications. Capital $13,000. 1975 sales $800,000. Ref. Sanwa Bank Nipponichi Branch, Osaka. Reply to—Ms. Etsuko Iwasaki, Mgr., Kakuryo Shoji Co., Ltd., 39 Higashino-Cho, Taihoji-cho Minami-ku, Osaka 541. Tel. 06-252-5250.

Drugs

• **28330—SRI LANKA** — Ministry of Health wishes price offers on supply of radiopaque contrast media. Tender No. C/CMS 2038/77. Closing date Oct. 26. Documents available from U.S. Department of Commerce, Room 2007, Washington, D.C. 20230; 202-377-2239.

Glass, glassware

3229122 — SWEDEN — Heat-resistant, machine-made restaurant & household glass stemware. Co. estab. 1912. Has annual turnover of about skr 17 million. According to local credit sources it is finan. sound & has met its business obligations satisfactorily. Recommended trade contact. Direct sale for resale & agency. Reply to—Christer Tell, Thorsten Brunius & Co., Box 2564, S-403 17 Goteborg 2. Cable, BRUNIUS; Telex, 20680; Tel. 031/17 05 60.

Structural clay products

32500, 33200, 34300, 36300—KUWAIT—Abdulmalek Al-Duaij, Gen. Mgr., Sanitary Ware Co., P.O. Box 21999 Safat, Kuwait, Cable SANIWARE is interested in contacting manufacturers of following products: bathroom sets, bathroom fixtures, wall and floor tiles, mosaic tiles, water heaters and filters, brass bibbs and faucets, cast iron manhole covers, galvanized pipes and fittings, cast iron pipes and fittings, fireclay and steel sinks, cast iron and enameled steel bathtubs and kitchen furniture. Company is 25 percent owned by Govt. of Kuwait with remaining shares held privately. Company was established in June 1976 with authorized capital of 6.75 million Kuwaiti Dinars (1 KD=$3.50). Items mentioned above will be in constant demand with approx. 40,000 units of public housing to be built in coming eight to ten years plus continued growth of private sector housing. U.S. firms can submit catalogs on full line of products ranging from lower priced items to medium and higher priced lines, and also more expensive, "luxury" items such as chromium plated and onyx bathroom fixtures, to address above.

Steel mill products

• **33100 — KOREA** — Various sizes and quantities of steel grit. Tender No. KFX-76229-PIII; bid deadline Oct. 19. Office of Supply, Government of Republic of Korea, Seoul. Tender documents available from Iron & Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2438.

Rolling, drawing, extruding of nonferrous metals

• **33500—GREECE**—211,500 meters of coaxial cable. Tender No. 7174; bid deadline Oct. 26. Hellenic Telecommunications Organization S.A., Procurement Committee, 6 Klissovis St., Athens. Tender documents available free at above address.

• **33500—URUGUAY** — 8 million meters electric wire; several types for different purposes, aluminum, copper single or stranded, insulated or bare. Tender No. 7490; bid deadline Oct. 19. Administraction Nacional de Usinas y Trasmisiones Electricas, Palacio de la Luz, Paraguay 2431, Piso 8, Montevideo. Tender documents available at above address. Interested parties must enter bids through local representatives.

• **33500—URUGUAY** — 1,495,000 meters telephone wire, 0.4 mm to 1.2 mm diameter, copper, plastic insulated. Tender No. 010; bid deadline extended to Nov. 16. Administracion Nacional de Telecomunicaciones (Antel), Palacio de la Luz, Paraguay 2431, Piso 9, Montevideo. Tender documents available at above address. Interested parties must enter bids through local representatives.

Fabricated structural metal products

• **34400, 35400, 37100 — INDONESIA** — Dept. of Manpower, Transmigration and Cooperatives, invites bids for purchase of following equipment for East Java Agriculture Credit Project under Asian Development Bank Loan No. 197 INO (SF): 20 paddy storage silos and two mobile workshop trucks. Interested bidders must obtain bid documents for Rupiah 20,000 (approx. $48.19) per set from Project Development Office, Directorate General of Cooperatives, Jalan Let.Jend. Haryono M.T., Tromol POS 384, Jakarta Selatan. U.S. listed in tender announcement as eligible supplier. Bid deadline Nov. 29.

General industrial machinery

• **35600—EGYPT** — 25 gas-driven, 2 HP pumps. Capacity of pump 54 gallons per minute at 5-foot lift. 10-pound discharge pressure. Self-priming. Suction lift limit 20 feet. Construction: cast aluminum alloy. 13 x 16 x 14¾ inch high. Carrying

handle: rails per permanent mounting. 1½ inch suction and discharge. Engine: direct drive, 4-cycle. 3600 RPM. Recoil starter. Price quotations requested c.i.f. Alexandria. Catalogs required. This is preliminary order to be followed by another of 50,000 units. Tender number and bid deadline not specified. Write or cable M. Joseph Bekhit, Youssef Bekhit & Co., 3 Sidi Mitwally St., Alexandria.

• **35600 — PAKISTAN** — 18 submersible water well pumping units and 35 each vertical turbine lineshaft pumping units, both 4 cubic feet per second. 12 natural gas engines for well pumping units. 12 10-inch size and 5 each 24-inch size main line water consumption registering meters. 92 sluice, gate and check valves of 10- and 24-inch sizes. Total value of tender approximately $1,000,000. Financing through IDA credit; offers will be accepted only from member countries of IDA and Switzerland. Director, Procurement and Stores, Lahore Development Authority (LDA/WASA), 4A Gulberg V, Lahore. Tender No. WASA/W5/002; bid deadline Nov. 1. Bid documents available from above address for $20 per set.

Service industry machinery

• **35892—BANGLADESH**—Supply of water and sewage treatment equipment consisting of chlorination machines, cylinders and including equipment for delivering chlorine gas and with compensating equipment for maintaining uniform flow of chlorine gas under varying pressures. Also supply of rectangular and circular flat back sluice gates for sewage treatment plant and pumping stations. Bid deadline Nov. 2. Ref.: Contract No. DW17-76. World Bank financing. Prescribed tender form and detailed specs., terms, and conditions available from Chairman, Dacca Water Supply and Sewerage Authority, Rupali Sudan, 156/157 Motijheel Commercial Area, Dacca 2. Submit sealed bids to above address. Cost of tenders is TK 500 (about U.S. $33.06) per set. Tender fee not refundable.

Electric transmission, distribution equipment

• **36130—INDIA**—Deputy Chief Engineer (Stores & Purchase), West Bengal State Electricity Board, 13 Camac St., 4th Floor, Calcutta 700017, has issued tender no. IDA-IV/WBSEB/6 for supply of loose protection relays and tariff metering equipment. Bid deadline Dec. 6. Copy of specifications available from above address for Rs. 100 (US $11.33) per copy.

Communications equipment

• **36610 — COLOMBIA** — Dr. Benjamin Cubillos, Jefe Seccion De Suministros, Empresa Nacional De Telecomunicaciones (TELCOM), Calle 23, No. 13-49, Piso 6, Bogota, has issued tender no. 076/76 for supply of 11 telephone exchanges. Bid deadline Dec. 6. Copy of specifications available from above address for 15,000 pesos (US $425) for first copy and 5,000 pesos (US $142) each additional copy.

• **36620—TURKEY** — PTT Genel Mudurlugu, Maleme Dairesi Baskanligi Ruzgarli Sokak, Catal Han, Ulus, Ankara, has issued tender for supply, installation, line-up and turnkey delivery of complete 1800 TN channel radio relay system plus CCIR system and 625-line color and black and white TV relay system for 16 stations in southeast Turkey. Bid deadline Nov. 25. Copy of specifications available in English from Modern Translation Bureau, Koranfil Sokak 36/7, Yenisehir, Ankara, for US $70.

• **36620—TURKEY**—TRT Kurumu Genel Mudurlugu, Genel Evrak Mudurlugu, Nevzat Tandogan Caddesi No. 2, Kavaklidere, Ankara, has issued tender for supply of two radio broadcast stations, with 500 KW shortwave broadcast transmitters, 5.9-19 MHZ band, dummy loads, cooling equipment, control consoles, line and program input equipment, monitoring equipment, power supply, internal feeders and spares. Bid deadline Oct. 27. Copy of specifications available from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara, for US $50.

• **36620—MALAYSIA** — Department of Broadcasting, Angkasapuri, Bukit Putra, Kuala Lumpur, has issued tender for supply of 2 television broadcast vans, fitted with 120 KVA mobile diesel generator, 3 color TV cameras, one portable camera, monitoring and test equipment and accessories. Bid deadline Oct. 31. Copy of specifications available for M $50 (US $1.00 equals approx. M $2.50).

• **36610 — ETHIOPIA** — Beyene Desta, Gen. Mgr., Telecommunications Service of Ethiopia, CPO Box 1047, Addis Ababa, has issued Tender No. 21/76 for supply of 55 manual telephone exchanges of various types. Bid deadline, Nov. 25. Copy of specifications available free of charge from above address.

• **36620 — ETHIOPIA** — Beyene Desya, Gen. Mgr., Telecommunications Service of Ethiopia, P.O. Box 1047, Addis Ababa, has issued Tender No. 22/76 for supply of 40-unit two-way, fixed station, single channel, solid state VHF radio link system, capable of good quality telephone communications by line-of-sight up to 100 km., or near line-of-sight to 60 km. System should be small, modern, highly reliable and designed to consume minimum power. Bid deadline, Nov. 29. Copy of specifications available from above address.

3662198 — CHILE — Electronic cryptographic equip. compatible with teleprinters & Morse, 220 & 110 V & 50-60 HZ. Total value investment $1 million. Payment will be through Chilean Navy's Mission in Washington. Reply to—Cdte. Pedro Chiminelli F., Capitan De Fragata, Armada De Chile, Estado Mayor, Ministerio De Defensa, Plaza Bulnes S/N, Santiago. Cable, 394321.

• **36620—TURKEY**—TRT Kurumu Genel Mudurlugu, Genel Evrak Mudurlugu, Nevzat Tandogan Caddesi, No. 2, Kavaklidere, Ankara, has issued a tender for supply of 13 VHF/FM broadcast transmitters, mono and stereo broadcast, pilot tone system, 87.5-108 MHz band, program input and monitoring equipment, control desks, automotive voltage regulators, antenna equipment and feeders, etc. Eleven stations will use 5 KW power, and two will use 10 KW. Bid deadline, Oct. 27. Copy of specifications available from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara.

• **36620—TURKEY**—TRT Kurumu Genel Mudurlugu, Genel Evrak Mudurlugu, Nevzat Tandogan Caddesi No. 2, Kavaklidere, Ankara, has issued a tender for supply of all equipment for a 100 KW, 155-264 KHz (LW) radio broadcast station, to be installed for parallel operation with an existing Marconi BD 219-100 KW (LW) broadcast transmitter. Bid deadline, Oct. 27. Copy of specifications available from Modern Translation Bureau, Karanfik Sokak 36/7, Yenisehir, Ankara, for US$35 per copy.

Electronic components, accessories

• **36740—INDIA** — Directorate General of Supplies and Disposals, Parliament St., New Delhi 110001, has issued tender No. 209/35/016/16.7.76/Cell 339 for supply of transistors and diodes. Bid deadline Oct. 16. Copy of specifications available from India Supply Mission, 2536 Mass. Ave., NW., Washington, D.C. 20009.

Electrical machinery, equipment, supplies

• **36930—MALAYSIA** — Secretary General (Defense Production), Ministry of Defense, Jalan Padang Tembak, Kuala Lumpur 15-03, has issued tender No. KP/PP (T4)/76 for supply of X-ray equipment for armed forces hospital at naval base at Lumut, Perak. Bid deadline Oct. 21. Copy of specifications available from above address.

Engineering, laboratory, scientific, research instruments

• **38110—MALAYSIA** — Bursar University Science Malaysia, Minden, Penang,

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has issued tender no. WBSE/76/PM/BI for supply of electronic workshop equipment for use in school of physics and mathematics, and scientific equipment for use in school of biological sciences. Bid deadline Oct. 25. Copy of specifications available from above address at M $50 (US $1 equals approximately M $2.50).

Instruments for measurement, analysis and control

• **38240—COLOMBIA**—Division de Licitaciones y Contratos, Instituto Nacional de Fomento Municipal, Insfopal Centro Administrato Nacional, Bloque 2, Of. 321, Bogota, has issued tender no. 020-BIRF-1072-CO for supply of 100,000 consumption-registering water meters of one-half inch diameter. Bid deadline Nov. 5. Copy of specifications available from above address at 2,000 pesos (US $57) for first copy and 500 pesos (US $14) each additional copy.

Surgical, medical, dental instruments

• **38420 — SRI LANKA** — Chairman, Tender Board, Ministry of Health, P.O. Box 584, Colombo, has issued Tender No. COM/TEN/76/248 for supply of bandages, gauze and absorbent cotton. Bid deadline Nov. 2. Copy of specifications available from Embassy of Sri Lanka, 2148 Wyoming Ave., NW., Washington, D.C. 20008.

• **38430—ECUADOR** — Secretario del Comite de Licitaciones, Ministerio de Salud Publica, Juan Larrea 444, Quito, has issued tender No. 8.85—: 89N No. 02-76 M.S.P. for supply of dental equipment, instruments and supplies. Complete specifications and bid documents must be purchased from above address, at $400, not refundable. Bid deadline Oct. 13.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Industrial chemicals, machinery

2819XXX, 2869598, 2861283, 2843071, 3559589, 3559562 — INDIA — Tanning agents, synthetic organic and inorganic. Also, natural tanning and dyeing materials and chrome tanning mixtures; leather finish agents. Also, leather tanning machines; leather footwear machinery & other leather goods machinery. Inquirer wishes to rep. U.S. mfrs. of listed items. Claims to hold Bachelor of Technology Degree in leather technology. Was with Bata Shoe Co. for a year as senior trainee in production dept., now employed in a leading firm which mfrs. chemicals. Plans to estab. firm for starting agency business. Write to R. Balakrishnan, 5 Third Main Rd., Raja Annamlaipuram, Madras 600028.

Special industrial machinery

3559555—NETHERLANDS — Machinery for processing & handling of glass. Estab. 1955, staff 6. Auth. capital Fls. 150,000. Paid in Fls. 32,000. Annual sales Fls. 20,000,000. Bankers-Amro-Bank NV, Van Baerlestraat, Amsterdam. Agents for Pickington Bros. Ltd., glass manufacturers, St. Helens, Lanc., UK. Recommend all transactions on secured basis. Reply to—J. Van Munster, Mgr., George Van Vorstenberg Glasagenturen BV, Jan Luykenstraat 14, P.O. Box 5177, Amsterdam. Twx: 12491; tel: 020/731951. Excl. ag. &/or distrib.

Electrical industrial apparatus

3621051—AUSTRALIA — Plumbing fixtures-earthenware. Firm estab. 1946 & employs 30. Imports from Japan, Korea, Taiwan, Hong Kong, Italy, France & U.K. Exports to South Africa, Pacific Islands & Iran. Trade Ref.: American Polarizers Inc., 1500 Spring Garden St., Philadelphia, Pa. 19101. Co. is listed on MITI (Japan) preferred list. Needs prices quoted in C&F. Reply to: John M. Petterson, Mng. Dir., Wolkenberg International Pty. Ltd., 374 Nicholson St., Fitzroy, Vic. 3065. Cable: ELWOL Melbourne; Telex: AA33705; Tel.: 03-41-5059.

Security (anti-shaplifting) equipment

3662697, 3662310 — AUSTRALIA — Interested in agency for broad range of equip. systems, procedures. Immediate interest in anti-theft tags for garments. Direct sale or mfr. under license or as joint venture. Est. value for tags expected to be about $1 million/year. Anxious to hear from U.S. suppliers. Reply to William J. Sheehan, Dir., Currency Handling Systems (Australia), Pty. Ltd., 28-30 Langley St., Darlinghurst, N.S.W. 2010. Cable: ASPINTERNATIONAL; telex AA 25584; tel. 33 4334.

Scrap & waste

5093XXX — KOREA — Scrap & waste materials — waste paper or corrugated carton paper. Est. monthly requirement — 5,000 m/t. Est. unit price — $90. Seeks private offers & delivery terms along with proposal for agency agreement. Claims to have located market for above supply. If terms are right, firm states that it will negotiate long-term contract. Est. in 1975 & has 3 salesmen. Registered offer agent. Official status required in Korea to rep. foreign suppliers & submit price quotations in own name. Reply to — Hong K. Lee, Pres., Crown International Corp., CPO Box 797, Seoul 100. Cable: COWMANINTER; Telex: MIKWANG K27329; Tel: 776-9393. Excl. agency.

Visiting Buyers & Officials

AUSTRALIA—V. A. Rose, Manager of Marine Garment Division, Driclad Distributors, is interested in hearing from U.S. suppliers of **polyvinylchloride or polyurethane or similar fabrics which can be joined by high frequency electric welding.** He is also interested in **closed cell foam material for life jackets.** His firm manufactures waterproof sporting and sailing garments as well as inflatable life jackets. Rose plans to visit the following cities: Los Angeles, arriving Sept. 25; Chicago, Sept. 29; Seattle, Oct. 6; Portland, Oct. 8; San Francisco, Oct. 10. He may be contacted through Theresa Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Wash. D.C. 20230; 202-377-3265.

PAKISTAN—Pervaiz Zia, Export Manager, Farmeh Seniors, Lahore, is visiting New York to buy **artificial leather** in running lengths, width between 45 and 54 inches. Zia wants to sign initial agreement for trial shipments worth $20,000 to $25,000, and may be contacted through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

SWEDEN—Gosta Larsen and Ake Landborn, representing Agriconsult AB, Malmo, are visiting the U.S. to purchase **slaughterhouse equipment and food processing machinery** and to visit plants using such equipment. They are also interested in research establishments in this field. Agriconsult is a large consulting firm for the farming and food processing industries; 60 percent of firm's business is outside Sweden, chiefly in Middle East. Reliable credit source recommends business relations. Arrived New York, mid-September. Plan to visit Chicago, Sept. 27-28; Rockford, Ill., Sept. 28; Louisville, Sept. 29; Kansas City, Sept. 30; Sandy, Utah, Oct. 4; San Francisco, Oct. 5-8; Los Angeles, Oct. 9-11; Amarillo, Tex., Oct. 12; Gainesville, Tex., Oct. 13; Atlantic City, Oct. 14. Visitors will contact Commerce District Offices wherever possible. Contact Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

THAILAND—Billy J. Hwang and Jack Hwang, Bangkok, will visit suppliers of **electronic PABX systems with capacity of 2-10 telephone lines and 10-60 extension stations, including automatic dialing and answering devices, and telephone security equipment.** They would prefer to import in form of components for assembly in Thailand. They will be visiting San Francisco, Los Angeles, New York, and Boston, each for 3-7 days. Their contact address is: C/O San-Lo Co., Ltd., 1307 South Shantee St., Los Angeles, Calif. 90015; 213-749-3833. Foreign Buyer Program, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3265.

YUGOSLAVIA — Six managers of the Alumina Division of the Yugoslav Enterprise Energoinvest are planning a visit to New York and Chicago Oct. 2-23. Energoinvest wishes to manufacture **aluminum windows, door frames, roofing, siding, fencing and similar goods.** Purpose of the trip is to visit factories and meet U.S. suppliers of aluminum equipment. They estimate purchases will exceed $250,000. Group will be accompanied by English-speaking engineer. They would appreciate as many visits as possible. American firms interested in meeting Energoinvest officials should contact the U.S. Department of Commerce, Foreign Buyer Program, Bill Corfitzen, Room 2322, Wash. D.C. 20230, 202-377-2068.

SWEDEN—Inge Strinnvik of Stockholm is interested in hearing from U.S. suppliers of piezo-electric ceramic; rechargeable lead, acid or gel batteries for primary and secondary uses; trimming potentiometers with cermet tracks; dials for multiturn potentiometers, digital and analogue types; chip components such as resistors, capacitors and transistors compatible to MOS and hybrid circuits. He may be contacted through Theresa Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

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U.S. DEPARTMENT OF COMMERCE

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Alex M. Armendaris, Minority Business Enterprise

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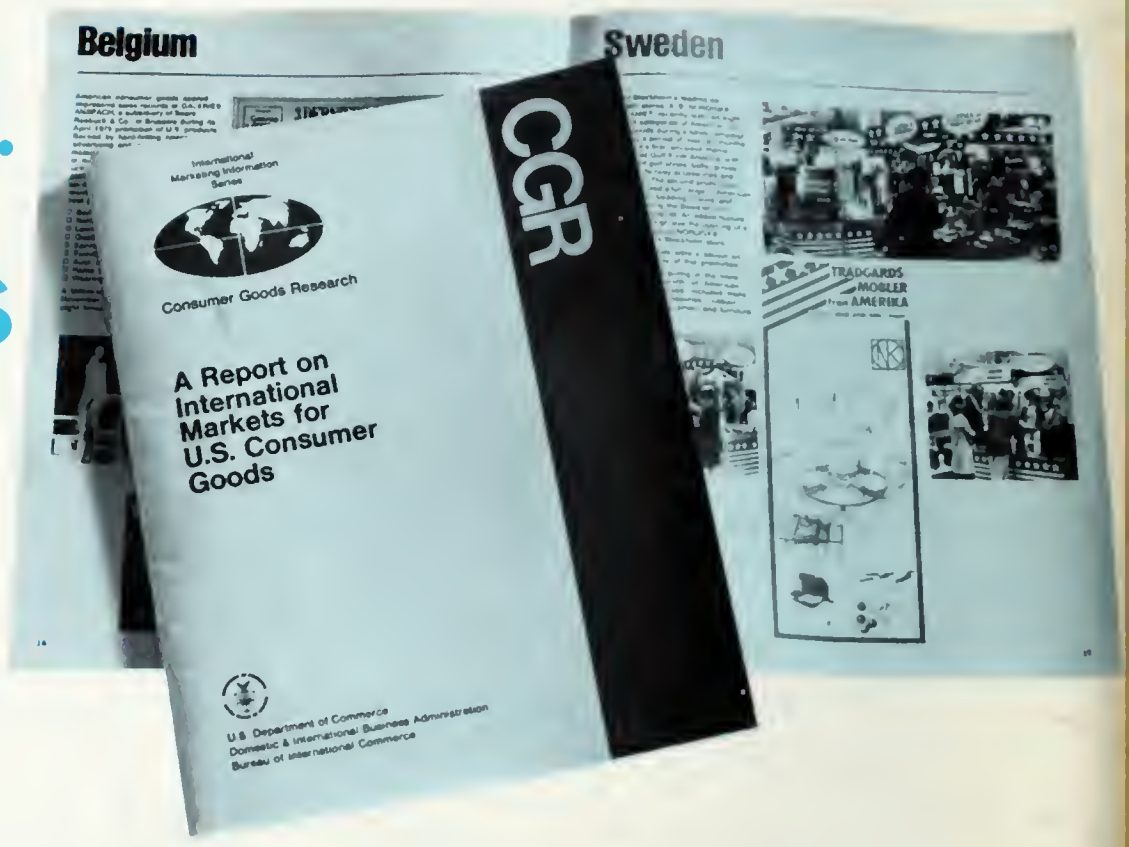
A Report On International Markets For U.S. Consumer Goods



This is the first in a series of publications about the sales of U.S. consumer goods abroad—their dynamic growth patterns and their promise for the future.

"In-Store and Mail Order Promotions" are designed to stimulate the sale of American consumer goods through foreign retailers. The individual promotions are arranged by the Commerce Department's Office of International Marketing in cooperation with the U.S. Foreign Service. This publication is a report on that program.

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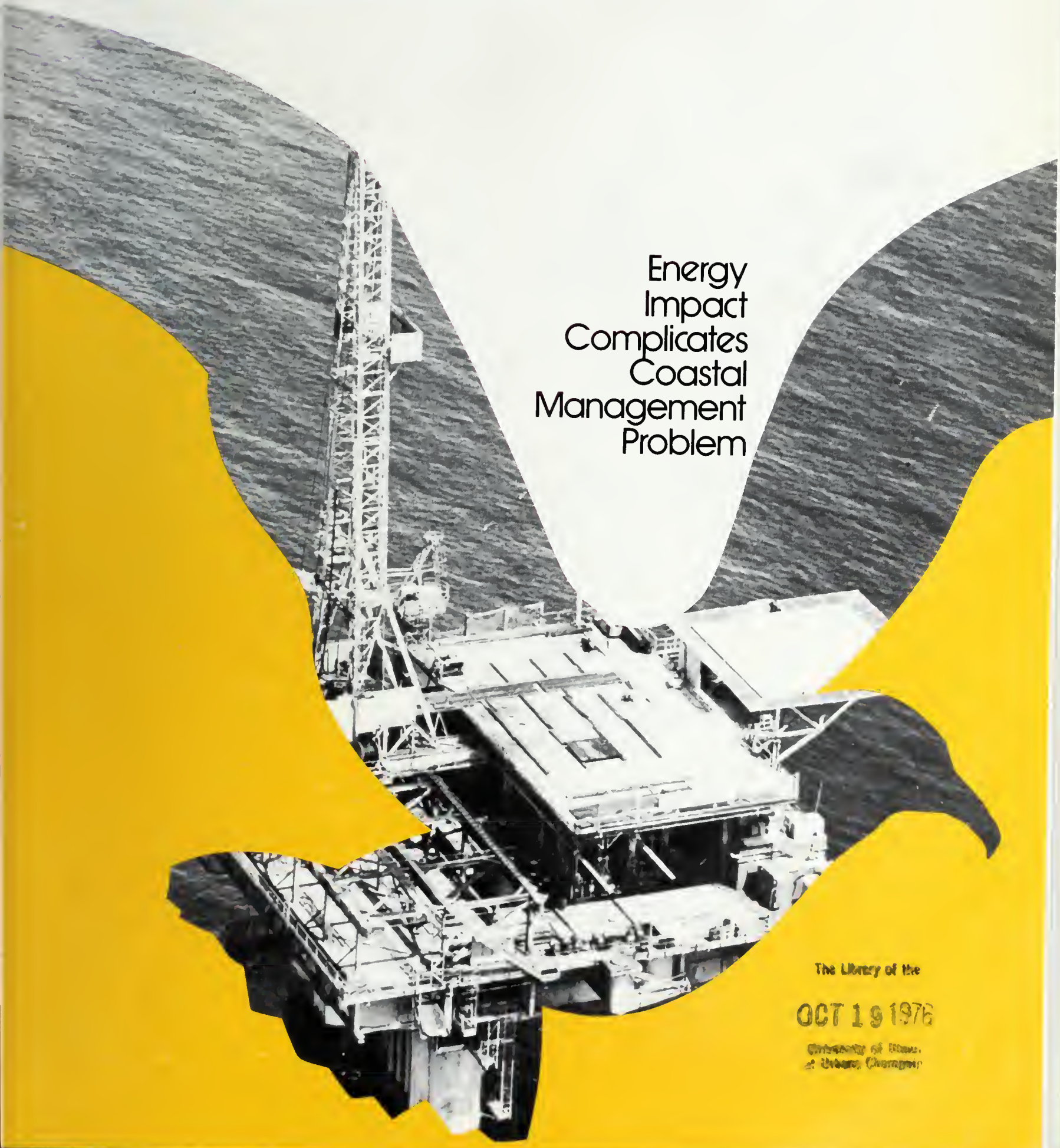
FORMERLY COMMERCE TODAY

U.S. Department of Commerce / October 11, 1976



Energy Impact Complicates Coastal Management Problem

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Newsmemo

There's still time for careful study of the effect of man-made chemicals on the earth's protective ozone shield. Essentially, that is what the National Academy of Sciences said in a well-publicized report last month. Major conclusions were: 1) Selected regulation of fluorocarbon emissions will be necessary; 2) Costs of delaying imposition of such regulations will be small; 3) Within two years, current research should provide a more effective basis for developing sound regulations. And in this field, corrective action must be taken not just by the U.S. but by all nations.

Strike activity in 1975 was on a sharp downtrend, according to full-year figures now available. A recent Bureau of Labor Statistics report showed all measures of such activity dropping off from 1974 figures: 1,043 fewer strikes, 37 percent less workers involved, 35 percent less workdays lost. Economic issues were the most common causes of 1975 work stoppages, but more than a third of the year's disputes centered around plant administration and job security.

California is looking at proposals for tough energy efficiency standards for household appliances. Legislation now being studied would set two target dates, one of Sept. 15, 1977; the other, Sept. 15, 1979. Most air conditioners now sold fall short of the 1977 efficiency minimums, and few, if any, satisfy the 1979 goals. In refrigerators and freezers, 16 percent of current models fall short of the 1977 standards, and 45 percent are unsatisfactory by 1979 requirements. Industry spokesmen criticize the proposals as too restrictive, and urge California to align its standards with efficiency improvement targets now being considered by the Federal Energy Administration.

Electric utility companies have data to show that industrial and commercial consumers carry their share of the cost load. Residential consumers have maintained that the higher rates they pay are out of balance in the total rate structure. But in 31 of 40 recent cost-of-service cases the utilities were able to show that industrial and commercial rates generated a higher rate of return on investments than the rates charged to residential consumers.

The jamup of Good Buddies' voices on CB radio channels is being extended to electronics equipment warehouses. The present overcrowded 23 Citizens Band channels will become 40 on Jan. 1. But the Federal Communications Commission won't allow 40-channel sets to be imported or shipped from domestic factories in advance of that date, to permit liquidation of inventories of 23-channel sets. Equipment suppliers say this delay is causing problems: 1) Added costs of storing 40-channel sets until Jan. 1; 2) Difficulty of testing foreign-made sets for quality while overseas or in bonded warehouses; 3) Inequities related to permitting importers to store units in bonded warehouses near major markets, while U.S. makers must keep theirs at plants often farther from customers. Sales of CB equipment could reach $1 billion this year.

Developing countries, except for the very poorest, maintained high average growth rates during 1974 and 1975. This achievement, noted in the recent annual report of the World Bank, took place despite the combination of world recession and inflation that threatened to leave the economies of these countries in disarray. The World Bank observed that in the past three years many of the poorer countries sought resolutely to face their economic problems. Examples of their responses included initiating tax reforms, adjusting the domestic prices of petroleum and food, providing incentives to stimulate agricultural production, and adjusting exchange rates.

Effectiveness of such efforts is corroborated by a Bankers Trust Co. official. Speaking of the developing nations of the Pacific Basin area, Carlos Canal said many of them have taken the worldwide recession in better stride than many industrialized countries. Taiwan and Korea are examples cited by him. But a cloud on the horizon for the developing nations is the future level of world energy prices. Any increases above 10 percent could cause new economic disruptions, the banker believes.

A welcome to the Seattle-based publication "International Business." After a year of testing the water, the publication is adopting a new, more colorful and trimmer format and going bimonthly with its September/October issue. A major aim is to attract a national rather than a regional audience. For a free sample copy, write to 14842 First Ave. South, Seattle, Wash. 98148.

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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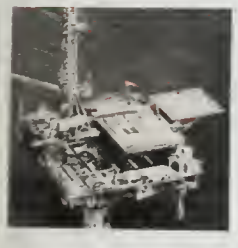

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COVER: Facing up to the energy crunch, the nation is trying to find ways to increase its domestic supplies of fuel wholly compatible with good coastal zone management so that the environment is least affected.

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ECONOMIC HIGHLIGHTS

Reduction In Unused Capacity Promotes Further Investment

This column was prepared by John W. Kendrick, Commerce Chief Economist, in collaboration with staff economist H. Kemble Stokes.

John W. Kendrick

The strength of the current economic recovery is similar to that of previous postwar expansions. Gross National Product, adjusted for price changes, has advanced 8½ percent since the first quarter of last year. However, due to the severity of the recent recession, there are still significant, although diminishing, margins of unused physical capacity. Recent changes in capacity utilization have reflected the nature and strength of the current recovery. The increase in utilization rates since the first quarter of 1975 has contributed significantly to increasing unit profits in nonfinancial corporations. These profits will help provide the stimulation for capital investment, an important element in both the strength and pattern of future economic growth.

Bureau of Economic Analysis data show that the capacity utilization rate in manufacturing rose seven percentage points over five quarters of recovery. However, the June rate was unchanged from March at 82 percent. This estimate reflects the more moderate rate of economic expansion in the second quarter, as well as a small negative effect of the recent, hut now terminated, strike in the rubber industry. Capacity utilization in durable goods industries increased by two percentage points to 83 percent in June and in non-durable goods industries slipped by one percentage point to 81 percent.

The manufacturing capacity utilization rate is now four percentage points below the recent peak established during 1973 and has regained seven, or 64 percent, of the 11 percentage points lost in the recent recession. For durable goods industries the gain has been 10, or 77 percent, of the 13 percentage points lost and for nondurable goods industries 5, or 50 percent, of the 10 percentage points lost.

These aggregate figures,however, mask some of the important features of the current recovery with regard to industry detail and timing, features which have important implications for the pattern of investment decisions in the second half of this year and 1977.

PROPORTION OF PREVIOUS DECLINES IN CAPACITY UTILIZATION RATES REGAINED BY SPECIFIED DATES
(Percent)

	Dec. 1975	June 1976
Manufacturing	36	64
Durable Goods	31	77
Primary Metals	0	67
Electrical Machinery	29	71
Machinery, except electrical	0	63
Transport equipment	35	70
Motor Vehicles	46	81
Aircraft	0	13
Stone, Clay, and Glass	29	53
Nondurable Goods	50	50
Food and Beverage	0	0
Textiles	73	73
Paper	55	70
Chemicals	38	63
Petroleum	40	90
Rubber	62	81

Note: For the rubber industry, the March 1976 estimate of capacity utilization is used in place of the June figure due to the distortion caused by the rubber strike. Estimates are calculated using peaks and troughs of each particular series.

These changes in capacity utilization are both a reflection of and responses to the character of the current economic recovery, which has, to a large extent, been a result of increased consumer purchases and a shift from inventory liquidation to accumulation. The resurgence of capital investment has been delayed in this expansion.

As the table illustrates, there are some striking differences between the patterns of recovery achieved by various manufacturing industries, mirroring to some extent the changes in final demand. The time frame includes the period between the trough of each series and the end of 1975, and the period covering the first six months of 1976. As such the estimates reflect not only a slower response hy the specified date, but includes the fact that some industry utilization rates hottomed out at a later date, a factor which is significant for the timing of subsequent investment decisions.

By the end of 1975, durable goods industries had recovered only 31 percent of the capacity utilization lost in the previous recession while nondurable goods industries had recovered about 50 percent. In the six months of 1976, durable goods industries recovered an additional 46 percent while there were no further gains for nondurable goods industries. Within durable goods, the motor vehicle industry had the sharpest increase in capacity utilization, followed by the stone, clay and glass and electrical machinery industries. However, of the total increase in utilization rates achieved by June 1976, only motor vehicles had regained over half of that amount during 1975. All of the nondurable goods industries, excepting petroleum, had achieved more than half of their rebound in 1975.

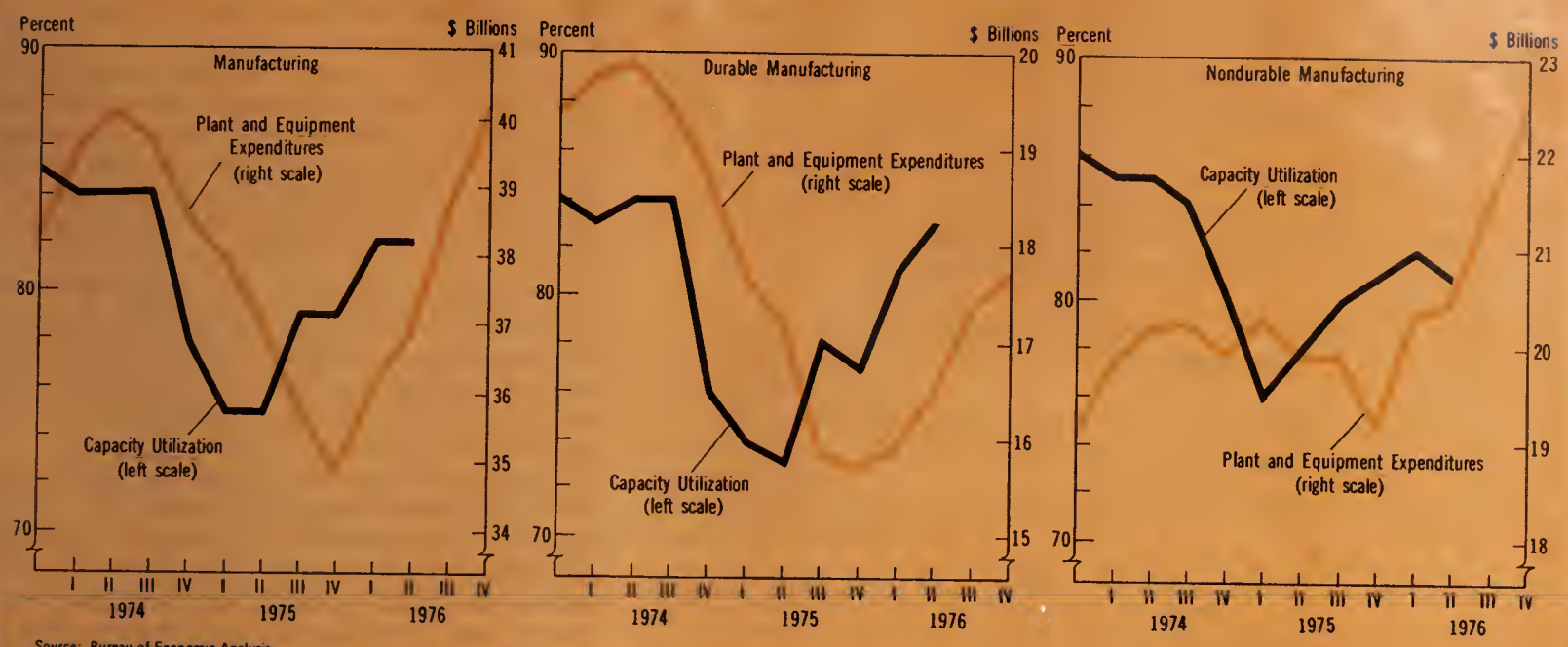
Reflecting these changes, as well as the overall reduced rate of capacity utilization, investment expenditures between the first and fourth quarter of 1975 declined by 8.2 percent, expressed in 1972 dollars ,for total manufacturing. Investment expenditures in durable goods industries declined by 11.3 percent, as the component industries, with the exception of motor vehicles, took a longer period to begin the recovery. For nondurable goods industries the decline in real investment expenditures was a more moderate 5.5 percent.

Plant and equipment expenditures increased significantly in the first half of 1976 for both durable goods and nondurable goods industries. Expenditures by durable goods industries increased by 4.6 percent and for nondurable goods industries, 6.7 percent. The second half of 1976 shows a continuation of these trends as durable goods and nondurable goods industries' plant and equipment expenditures are planned to increase by 7.7 and 9.7 percent, respectively.

Particularly sharp advances in real investment expenditures are scheduled for the capital goods producing industries, electrical (14 percent) and nonelectrical machinery (15 percent). These industries have experienced rapidly increasing rates of capacity utilization during the last six months and will be the most affected by increased investment generally. Other industries with particularly significant increases in investment expenditures are motor vehicles (19 percent), paper (27 percent), petroleum (10 percent), and chemicals (10 percent).

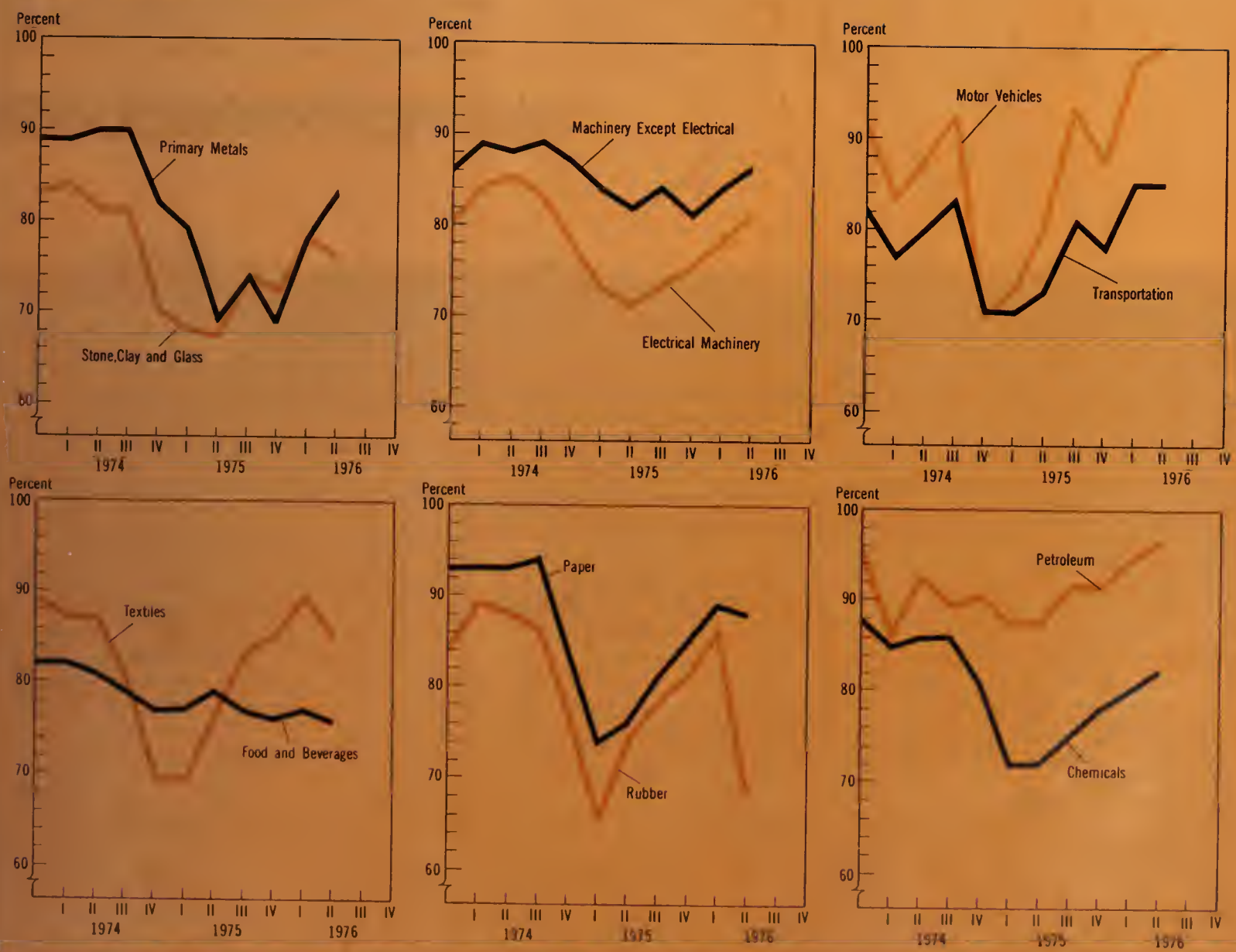
These changes in plant and equipment expenditures, in large part the consequence of past and anticipated economic growth and increasing rates of capacity utilization, will be contrihuting significantly to and altering the pattern of economic growth in the future. This planned expansion of physical capacity is a prerequisite for continued economic growth and further reduction of inflationary pressures.

Capacity Utilization and Plant and Equipment Expenditures



Source: Bureau of Economic Analysis
NOTE: Plant and equipment expenditures adjusted for inflation by the implicit price deflator for the non-residential fixed investment component of GNP.

Capacity Utilization by Industry



Source Bureau of Economic Analysis

ENERGY IMPACT complicates coastal

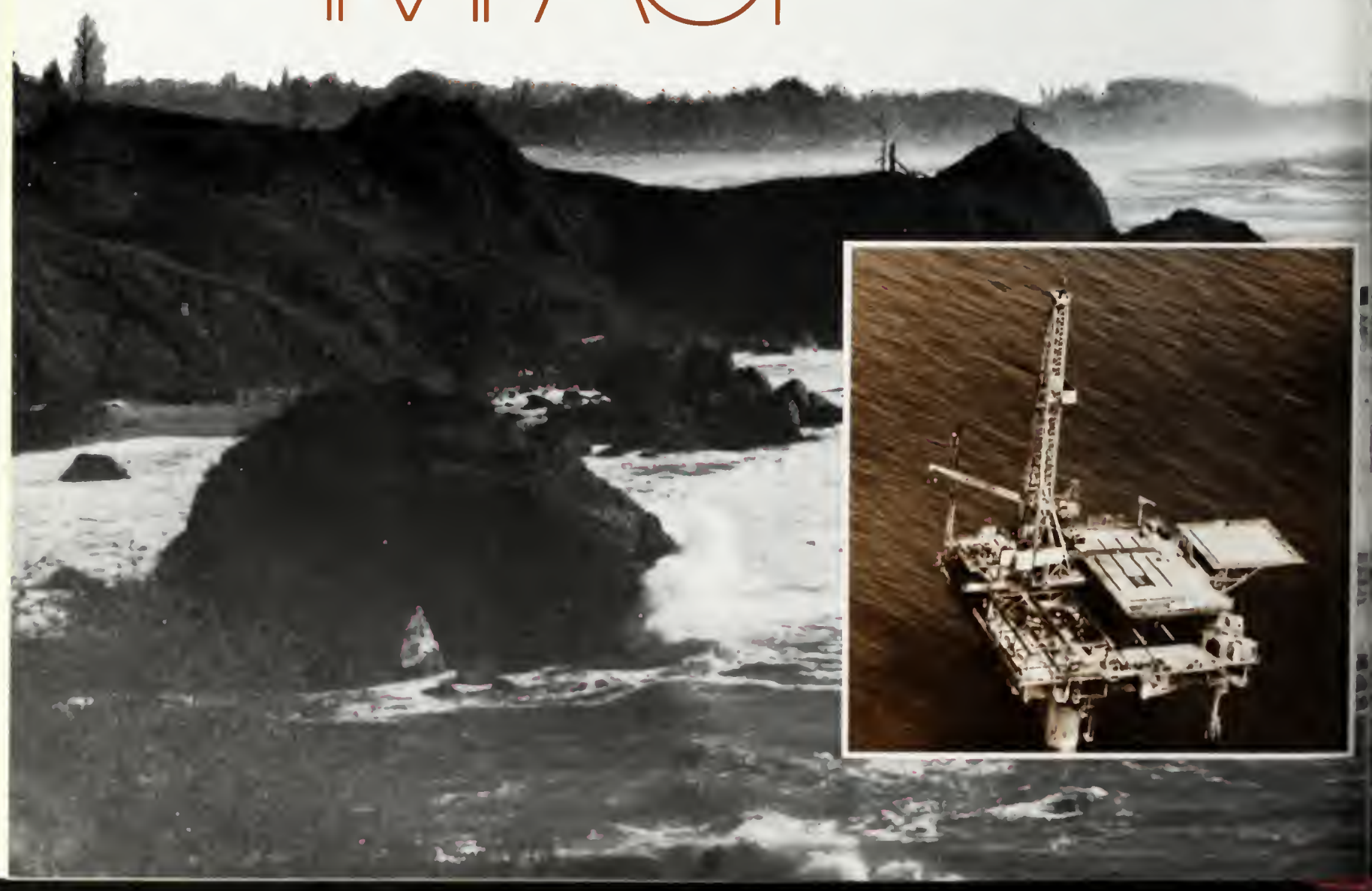
The U.S. energy situation has added still another dimension to the continuing problem of protecting America's coastlines.

Since Rachel Carson called attention to the fragility of coastal ecosystems in *The Sea Around Us* in the 1950s, Americans have been searching for ways to preserve and restore the U.S. coastline. These efforts culminated in the passage of the Coastal Zone Management Act by Congress in 1972.

Traditionally, sea and lake shores have often emerged as battlegrounds for recreation and commercial interests: sport vs. commercial fishing; isolated cottages vs. resort development; hiking trails vs. roads; wildlife sanctuaries vs. dune buggies.

Congress intended the Coastal Zone Management Act to provide federal financing and technical assistance to stimulate state leadership in planning and managing the coastal zone, and to help harmonize the social, economic and ecological aspects of land- and water-use decisions of more than local significance.

Recently, amendments to the Coastal Zone Management Act were passed to authorize additional funding for an area of critical national importance: increasing domestic supplies of energy in a way that is compatible with good coastal zone management. One billion six hundred million dollars was authorized over the next ten years, of which $1.2 billion will be used for loans in a Coastal Energy



Impact Program, and the remainder to expand the basic Coastal Zone Management Program.

The original Coastal Zone Management Act offered states three types of grants: for program preparation. for program operation, and to help them set up estuarine sanctuaries as natural field laboratories to be used for education and research.

The act leaves it to the individual states—working with their local governments, the interested public and federal agencies—to develop programs that protect and promote rational use of the coastal zone. It directs Commerce's National Oceanic and Atmospheric Administration to provide guidance and support to the 34 coastal states and territories (those bordering the oceans and the Great Lakes) in developing programs for the management of their coastal areas.

Federal funding to help the states begin their planning effort was made available late in 1973, and within 12 months all but one eligible state had received grants. To date, approximately $35 million has been awarded.

Under the new amendments, the Coastal Energy Impact Program provides financial assistance—grants, loans and bond guarantees—to coastal states and local communities affected by coastal-related energy activities. Specifically, the program helps finance public facilities and services made necessary by energy activity which by its nature has to be located on the coast.

When a state applies for a planning grant under the Coastal Zone Management Act, it must match one-quarter (formerly one-half) of the total federal money it requests—resulting in 80 percent federal and 20 percent local funding. The governor must designate a state agency to administer the grant and complete the work plan.

To be eligible for federal assistance, the state must address nine items in its planning program:

—identify the boundaries of the coastal zone;

—inventory and designate areas of particular concern;

—develop broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority;

—determine permissible land and water uses which have a direct and significant impact on coastal waters;

—describe the means by which the state proposes to control those uses; and

—outline the organizational structure which would implement the management program;

—develop a planning process for the protection of and access to coastal attractions;

—develop a planning process for energy facilities; and

—develop a planning process to deal with erosion.

When the state has developed its program, it can seek matching federal funds for 80 percent of the cost of administering the program.

Grants for estuarine sanctuaries are made on a 50-50 percent matching basis. This provision en-

management problem

Only by careful planning can the United States hope to achieve energy independence without damaging one of the country's most precious natural resources . . .

ables the state to acquire estuarine water bodies and adjacent waters, wetlands and uplands, and to operate the area for education and research.

In a similar vein, another law supports the preservation or restoration of marine sanctuaries. Any individual, organization, state or federal agency may nominate an area to be designated a marine sanctuary. To date, two have been set aside: the site of the wreck of the Civil War vessel *USS Monitor*, and an ocean area adjoining Florida's John Pennekamp Coral Reef State Park off Key Largo.

The Coastal Zone Management Act directs states to coordinate with federal agencies during plan development, and requires federal agencies to be consistent to the "maximum extent practicable" with the states' programs once they are approved.

To assure that all citizens have a voice in coastal zone management, the act insists that hearings be held during the planning stage. Those not only provide planners with citizen input, but also give the public the opportunity to keep abreast of their state's coastal management planning progress. Some states are going even further than is required by conducting public opinion polls, creating citizen advisory committees, and using county extension agents and publications from Sea Grant Programs to keep the public informed.

The act also specifies that state plans must serve the interests of the country, especially with regard to the siting of facilities. To this end, the act decrees that "air and water pollution control requirements . . . shall be incorporated into state coastal zone management programs." To meet this requirement, states must consult with the appropriate federal agencies, and discuss with adjacent and nearby states how regional needs may best be met.

In addition to energy production and transmission, some of the matters to be considered in determining whether the siting of a facility bears on the national interest are recreation, interstate transportation, production of food and fiher, preservation of life and property, national defense, mineral resources, and historical, cultural, esthetic and conservation values.

In requiring "adequate consideration of the national interest," the law does not mean that states must accept facilities in their coastal areas simply because federal agencies think such a facility would be in the national interest. It does mean, however, that the state must consider the matter and not arbitrarily exclude or unreasonably restrict such facilities without sufficient reason.

While there is an urgent need to develop additional energy resources for the country as a whole—that is, for the many—the cost in terms of environmental losses, social disruption and expenditures for the puhlic facilities are often paid for by the few—the citizens of those communities which are directly involved.

The energy crisis has placed new emphasis on concern with the impact of off-shore oil and gas exploration. Most of the concern about the national interest in the siting of facilities relates to proposals for the Outer Continental Shelf (OCS).

In 1974, the OCS supplied 10 percent of domestic oil production and 15 percent of domestic gas. A recent U.S. Geological Survey study estimates that between 20 and 40 percent of future U.S. oil and gas resources could be recovered from OCS regions. In fact, the total amount of recoverable reserves in unexplored OCS areas considered suitable for leasing is unknown.

The federal oil leasing program was established by Congress through the Outer Continental Shelf Lands Act of 1953. Under this act, and the 1969 National Environmental Policy Act, the Department of the Interior chooses the general areas on the hasis of resource potential, ease of development and environmental risk. Next, a call for nominations of specific tracts is published in the *Federal Register*.

Any person, association, state or subdivision, or private, public or municipal corporation may nominate a tract for lease. At the same time, the public may comment on the area under consideration. The Interior Department then makes a tentative selection of specific tracts.

Draft Environmental Impact Statements must be prepared on a sale-by-sale basis and made available for public review and comment at public hearings. At least 30 days after the final statement is published, the Secretary of the Interior decides whether to hold the sale and, if affirmative, which tracts to offer for leasing. Bidders then make a sealed cash offer.

Following the bidding process, the successful bidder receives a five-year lease granting exclusive right to explore the tract, and, if oil is found, to produce as much oil and gas as possible for as long as mineral production continues. Each lease specifies an amount of annual rent that must be paid until nroduction begins and, after that the amount of royalty (the percentage of market value of production).

The bidder must submit a plan for exploration, and later for development, which must be approved by the U.S. Geological Survey. Other federal agencies also have a regulatory role.

In 1974, as a key part of Project Independence, the President announced plans to accelerate oil and gas leasing on a large scale. The original goal was to lease ten million acres in 1975. However, due to various factors, only 1.7 million acres were actually leased in 1975.

The lack of specific data on the size of offshore oil and gas reserves before OCS lease are let affects the information available to coastal communities for planning related onshore development. The impact, both positive and negative, will affect land use patterns, social structures and lifestyle, population, employment, housing, local economy, tax hase, and government services and facilities such as schools, roads, police and fire protection, water and sewer capacity.

Anticipating these effects and planning for them is a matter of serious concern in states and localities nearest the proposed federal OCS leasing areas. It is with this in mind that the Coastal Zone Management Act was expanded through amendments to provide assistance to these communities so that any adverse impact of energy development may be minimized.

The energy crisis will not go away. Only hy careful planning can the United States hope to achieve energy independence without damaging one of the country's most valuable natural resources—its oceans and lakes, and the food, recreation and pleasure they provide to all. ☆

when the experts disagree

Who's a person to believe?

There are reputable scientists on all sides of every major technical issue affecting everyday life in this countrv: food additives, nuclear power, use of pesticides, and fluorocarbons' effect on the earth's ozone shield, among others in a seemingly endless list.

And satisfactory answers seem unobtainable until a method is devised for determining which of two equally-prestigious, but diametrically opposite, viewpoints is correct.

"Many times the disagreements are not because one expert is right and the other wrong," points out Richard O. Simpson of the Consumer Products Safety Commission. "Often, neither expert is 'wrong' in the usual sense of the word. Rather, they are arguing past each other on differing points, or else making different interpretations of available data and each presenting it as 'the truth.' "

One possible solution which has been winning adherents is a procedure whereby scientists representing different sides of a socially-significant issue could thrash out its technical aspects before an impartial, but expert, panel of fellow scientists from related disciplines.

Proponents and opponents of the idea met recently at the Xerox International Center for Training and Management Development at Leesburg, Virginia, to discuss the merits of a proposed "Science Court" (a name opposed by practically all participants, but which will be used in this article for lack of an accepted substitute). Commerce's Technical Advisory Board, the National Science Foundation and the American Association for the Advancement of Science joined in sponsoring the symposium, which was chaired by Asst. Secretary of Commerce for Science and Technology Betsy Ancker-Johnson.

"Choices will be made, one way or the other," Commerce Secretary Elliot L. Richardson told the symposium. "They may be made out of ignorance or they may be made intelligently—but in any case they will be made. . . . In the capacity of policymaker I have been involved in many of these things over a long time. . . . If we understand what we're doing, we know that we are constantly dealing with gross uncertainties. Again and again we do not have information available either in quantity or reliability anywhere near proportional to the importance of the decision we have been called upon to make. . . . The proposed experiment of the Science Court can help build scaffolding out into the abyss, so that the ultimate leap that has to be taken by the political process is narrower."

Simpson explains, "A primary purpose would be to create a situation in which the scientists having differing views of the state of current technical knowledge direct their best arguments at each other and at a panel of sophisticated scientific judges rather than at laymen. The experts themselves are not only in the best position to explain their views but are also in the best position to point out the faults of counter-reasoning." Simpson was a member of the Presidential Advisory Group on Anticipated Advances in Science

The judges . . . would determine what are currently the most scientifically compelling arguments . . .

and Technology, which drew up the proposal.

After three days of pulling and hauling, the general attitude of the assemblage was one of cautious approval, perhaps best represented by Environmental Protection Agency Administrator Russell Train: "My fascination is tempered by caution, not because I don't believe the idea has merit, but precisely because I think it does. Whether or not its early promises are ever fulfilled is another question. But I am convinced the idea deserves serious attention."

There were dissenters, however, such as Alan McGowan, president of the Scientists Institute for Public Information. "The science court poses many problems. Beyond the mechanical difficulties of getting adequately trained 'judges' who at the same time have no previous involvement in the issue—a difficulty in itself enough to destroy the idea of the court—the concept flies in the face of science itself.

"The way to resolve scientific disputes is more data, not cutting off research and making a decision based on inadequate information. Yet the very essence of the court is to make decisions in cases where society cannot afford the time or the money to do the work necessary to resolve the dispute.

"In short, the Science Court will not work, even for those who think it a good idea."

Just what is this proposal, which seems to have stirred up precisely the kind of controversy it is designed to resolve?

First proposed by physicist Arthur Kantrowitz of Avco Everett Research Laboratory, who remains its most dedicated backer, the basic mechanism would be a court-like procedure in which an issue will be discussed in adversary fashion before a panel of scientific judges. The judges would be scientists but would not be experts in the particular subject at issue, and they would be subject to challenge for bias by the adversaries at the outset of the process.

The judges, unlike their legal counterparts, would not make policy decisions or recommendations. Instead, pointed out Presidential Science Adviser Guyford Stever, they would determine what are currently the most scientifically compelling arguments in such areas as:

—The matter of thresholds: At what level is an otherwise valuable food additive, pesticide, or other chemical dangerous to humans?

—The matter of time span between cause and effect: How can you determine that a substance is carcinogenic if it takes as long as 20 to 30 years after exposure for cancer to develop?

—Perhaps most difficult is the determination of technological safety, when the question hinges on not the concept or design of the technology but its construction and operation by fallible humans.

—It can also demonstrate the problem of arriving at certainty in science, and why we must sometimes accept and work with theories based on inconclusive evidence and take some action while we pursue greater certainty.

The experiment would start with the selection of an issue currently pending before a government agency. The issue must be both real and in current need of resolution as well as involving technical controversy that is important to the decision.

Next, a source of "untainted" funds must be found. "It is important to the experiment that the funds be both ample and that no one is perceived to have 'bought' the outcome through funding of the process," Simpson emphasizes.

Considerable doubt has been expressed about the wisdom of seeking funding directly from a government agency involved in the issue. Although such money could be given without strings, there might be an implication that the next time the Science Court came for funds the agency's decisions would depend on whether the first ruling was acceptable to it. Therefore, some suggest that initial funding come from the National Science Foundation. In addition to the NSF, a variety of other funding sources for the experiment, including private foundations or business sources would help insure independence.

However, it is important to have involvement of the agency in whose jurisdiction the issue falls, so that it can help in formulating the issue, advise on the procedure, and provide necessary power to compel release of relevant information.

Once an issue has been selected and funding obtained, the Presidential Advisory Board's recommended next step would be to choose the adversaries, or "case managers" for each side. For example, a group such as the Union of Concerned Scientists, the Sierra Club, and/or Friends of the Earth might represent the anti-nuclear power side of that issue. The Atomic Industrial Forum might well represent the side favoring nuclear energy, perhaps in alliance with other scientific groups.

A list of prospective judges certified as unusually capable scientists having no obvious connections to the disputed issue would be compiled. These would then be examined by the case managers for prejudice, and a selection made.

In addition to the panel of judges, there would be a referee, selected by the Science Court, who is concerned with the implementation of agreed procedures in a scientific setting. Under the Advisory Group's proposal, the referee would be a scientist advised by legal counsel, so that full responsibility for this procedure can be retained by the scientific community.

The issue selected for a trial run of the procedure will almost certainly be a value-laden controversial matter. The Advisory Board proposal lays out a step-by-step process by which factual questions under dispute can be isolated from the emotional.

The first step is the formulation by the case managers of a series of factual statements which they regard as most important to their case.

After examination by the referee or the judges to be sure that they are confined to statements of scientific fact, the statements would be exchanged between case managers. Each side would then accept or challenge each of the opposition's statements. Since the statements are drafted in the knowledge that they will be subjected to sophisticated challenge, it is hoped that exaggeration and vague language will be deemed counterproductive.

Challenged statements would first be dealt with by a mediation procedure in which attempts are made to narrow the area of disagreement or to negotiate a revised statement of fact that both case managers can accept. If this procedure fails, the challenge would be the subject of an adversary procedure.

The adversary proceeding will begin with a case

manager's putting forth his substantiation of a challenged statement in the form of experimental data and theoretical calculations. This evidence will be subjected to detailed scrutiny by the judges. Since this is one of the most hotly-disputed points in the proposal, it is important to recognize that the applied rules of scientific procedure, and not the legal rules of evidence, will apply. There will be no necessity to prove the expertise of a witness, since all statements will be open to detailed challenge.

As currently proposed, the initial rules would be agreed upon by the case managers and changed only with the agreement of both case managers during the experiment.

An initial procedure is being drafted. However, the Science Court would not be bound by precedents but would continuously seek to refine its procedures.

Many of the concerns raised have been due to the proposal's attempts at drawing legal analogies.

Noted anthropologist Margaret Mead, for one, expressed strong reservations about the court model. She said that the concepts of a verdict, the adversary system, the idea that there could be judges who could give a verdict, and the notion that interest groups would finance the presentation of scientific evidence for their partisan advocacy, are all incompatible with the methods of science.

However, she endorsed the idea of a new mechanism which would supersede the present system of expert witnesses, and provide a method by which scientific uncertainties could be rendered intelligible and relevant to policy makers.

Only two alternatives?

Alan McGowan also found a fundamental difficulty in attempting to impose the legal model on scientific disputes. "The methodologies of both the scientific and legal professions have been well worked out to meet their different needs, and it should be no surprise that their methodologies are different," he said. "Although there are problems in each model, they cannot be solved by merging the two systems. The binary (yes/no) system called for in the legal process is rarely, if ever, applicable in scientific disputes. Forcing science into the binary mode would only ensure that many wrong decisions will be made, for the correct decision—a third or fourth alternative—would often not be included in the binary mode.

"The adversary model assumes loyalty to a 'side' with no requirement to give any evidence which might in any way benefit one's adversary. This is contrary to the spirit and procedure of science, and it is hard to see any real benefit. The imposition of this model will only polarize attitudes, harden positions, exclude third and fourth positions which might be the real answers, and put serious hurdles in the development of solutions.

"No administrator of scarce research dollars will be inclined to finance a proposal that is intended to challenge the decisions made by a Science Court. Yet the essence of science—and what leads to the important revolutions—are just such challenges," McGowan maintained.

Proponents of the idea point out that there are major differences between the Science Court and our existing legal institutions which hamper the drawings of analogies.

Basic is the fact that the Science Court will not render decision, it will render reports to a decision-maker, and make these reports available to the public-at-large.

The primary results to be expected are a series of factual statements. Some or most of these statements of fact will be qualified with statements about probable validity or margins of error. An important secondary consequence will be the lines drawn between areas where scientific knowledge exists and where it does not exist. Since important knowledge that is lacking will be pointed out, judgments will suggest areas where new research should be stimulated. In almost all cases the boundary between knowledge and ignorance will continuously shift, and revisions to take account of new knowledge may have to be made frequently when issues of great national importance are at stake.

Thus, no matter what the Science Court has to say on any subject, the final court of appeal for scientific fact will always be the experiment.

Syracuse University, Sociology Professor Alan Mazur, proclaimed himself a strong proponent of an experiment, but an agnostic on the issue of a permanent institution for handling all such disputes. He said the original experiment should involve "at least four or five separate courts, each examining a different technical dispute. Clearly, one experiment by a single court wouldn't be too useful because we would have no way of saying whether the result was a general effect of such proceedings, or simply due to the peculiar circumstances that happened to come together in that one run.

"Perhaps this experiment would be too grand. A cheaper version would have only one court per issue, but that court would have several panels of judges, each panel operating independently, but all listening to the same evidence and arguments. Would these separate panels of judges come to similar conclusions? If not, I would find it difficult to support a permanent court. If the panels came to similar conclusions, then the notion of an objective court becomes more plausible."

Finally, the idea's advocates point out that it is not a device for creating decisions which are not needed or a consensus that is not attainable. "An experiment will only be convened at the request of an agency requiring scientific findings for a pending decision," points out Richard Simpson.

As for consensus, "I would not expect it," says Berkeley physicist John P. Holdren. "But this is precisely the point: policy-makers must stop waiting for consensus where none is possible and concentrate instead on how to minimize the social costs of uncertainty."

The proposed body would be for use where no real consensus has yet emerged, but where a decision *must* be made before it does emerge.

"We must realize that there is a time in all our technological and institutional development where we proceed to a course of action, rather than continue further exploration and improvement, knowing that what we create can and will always be improved upon," says Presidential Science Adviser Guyford Stever. "Something newer and better always comes along. But only a paranoid person or society does nothing because it fears failure or something less than perfection."

Challenged statements would first be dealt with by a mediation procedure in which attempts are made to narrow the area of disagreement.

Energy Digest

BARNYARD BONUS . . . Coal combustion wastes could become an agricultural benefactor. Two federal agencies are cooperating in tests to evaluate the uses of wastes from new coal-fired boilers for fertilizer and soil treatment. Under an agreement with the Energy Research and Development Administration, the U.S. Department of Agriculture will evaluate agricultural uses of solid wastes from plants that burn coal mixed with limestone in a fluidized bed. That is, the coal and limestone are crushed and suspended in air. As the coal is burned, the limestone absorbs sulfur oxide pollutants. In a fluidized bed power plant, high sulfur coal could be burned cleanly. ERDA and industry are conducting research on the fluidized bed concept to bring it into commercial use.

STUDYING HOT SHIPMENTS . . . The Nuclear Regulatory Commission has initiated a two-year study to determine the environmental impact of radioactive material transported near and through large, densely populated areas. The NRC has selected Sandia Laboratories, Albuquerque, N.M. to analyze the effect of such shipments in regard to: —high population densities; —shielding effects of buildings under normal and accident conditions; —the effect of local meteorology on accident consequences; -the convergence of transportation routes in cities. The environmental analysis by Sandia will be used by NRC in developing its Generic Environmental Impact Statement, a draft version of which is to be issued in late 1977.

SHORTCUTS MEAN SAVINGS . . . By helping to reduce construction delays, a special task force has saved 17 electric utilities an estimated $300-$500 million. The Presidential Task Force on Power Plant Acceleration was established to assist in removing impediments to construction of electric utility power plants. It has provided, on request, expert technical advice to aid utilities and state and federal bodies in expediting the construction of approved projects that were being delayed. A Federal Energy Administration report indicates that construction delays were reduced by an average of three months for each power plant which was examined by the task force.

CORPORATE RESEARCH . . . More than 200 major energy research projects are being sponsored by 142 corporations, according to an ERDA-funded report by a non-profit survey organization called Inform. The companies, which range from big oil to prominent engineering firms, are finding ways to tap energy from the sun, fossil, and nuclear sources, as well as to get fuel from trash and industrial wastes. The likely environmental effects of these projects are included in the report. For example, giant facilities to convert sunrays into electricity could cause thermal pollution in some Southwestern water systems—similar to the thermal pollution around nuclear plants. For information write, Inform, 25 Broad St., New York, N.Y. 10004.

NEW CANNING PROCESS . . . ERDA has signed a six-month contract with the National Canners Association to evaluate the energy conservation potential and the effects on product quality of a new vegetable canning process, called vacuum blanching. ERDA also has contracted with the University of Arizona to demonstrate and evaluate a process that captures and re-uses exhaust heat from fruit dehydrators. The study will evaluate the effects of vacuum blanching on the quality of canned vegetables. Demonstration of the technique in a canning plant will be the next step, if the method shows promise. Preliminary analysis indicates that about 40 percent of the heat wasted by typical fruit dehydrators can be recovered with modern equipment, including devices that recirculate air, yielding annual energy savings equal to about 300,000 barrels of oil. Successful test results could lead to use of these modifications in dehydrating an estimated 25 percent of the nation's dehydrated fruit by 1980, and 100 percent by 1990.

ENERGY SITESEEING . . . The first of a four-volume energy travel guide has been published by ERDA to provide travelers with a tour of sites where energy history was and is being made. The 103-page Volume 1 Energy Trails: A Guidebook Describing Energy Sites, Power Plants, Science Museums, and Other Interesting Places, may be obtained free from ERDA, Technical Information Center, P.O. Box 62, Oak Ridge, Tennessee 37830.

BUT WILL IT SELL? . . . Successful commercialization of new solar, oil shale, or conservation technologies often depends on their reception in U.S. money markets. FEA has established a citizen committee to advise officials on projected changes in capital markets and on the impact government financial policies have on the country's domestic energy supply.

Innovative City Revival Plans To Get U.S. Grants

COMMERCE, LABOR AND HUD JOIN IN TEN-CITY PLAN THAT BRINGS PRIVATE SECTOR IN ON GROUND FLOOR

Ten cities have been selected for a unique demonstration which combines the pooled resources of three Cabinet departments with plans of local officials and business and community leaders to generate jobs and help revitalize the cities.

Taking part in the program which is sponsored by the Departments of Commerce, Labor and HUD, are Albuquerque, Baltimore, Bridgeport, Buffalo, Chicago, Dayton, Kansas City, Oakland, Philadelphia and Pittsburgh.

The qualifying cities, all with populations in excess of 150,000, and all with significant economic and unemployment problems, will be given federal grants totaling $4.82 million over the next two years to demonstrate innovative public/private solutions to their problems.

Nine of the ten will receive annual grants of $250,000 for the two-year period. Dayton, which submitted more modest plans, will get $160,000.

These grants, together with community, economic and employment and training development funds provided under existing programs, will add up to more than a billion dollars for these cities.

Chosen from among 30 competing cities, the ten have outlined a variety of improvements such as the creation of an economic development commission, loan and bond programs to raise capital, industrial development corporations, industrial parks, and neighborhood commercial revitalization ideas.

Most are creating a special office within the city government structure to bring together already-existing separate development programs and the private sector's resources.

Beyond the coordinating office, specific projects proposed include Oakland's one-stop business service center, which will get listings of available land or property suitable for industrial use from local industrial brokers and pass this information on to interested businesses.

Albuquerque is concentrating its economic development on what it calls its Central Corridor, a run-down central business district in need of help. The city is planning to close the corridor to heavy traffic and create a neighborhood commercial street. Creation of a pedestrian mall in the area is already under way.

The city hopes to use HUD block grant money to buy land in the Central area with old buildings on it at current market

A Matter Of Integrity

Statement by Secretary of Commerce Elliot L. Richardson on the integrity of the Department of Commerce's economic data:

It is of utmost importance that public confidence in the integrity of economic data compiled by the Department of Commerce be maintained. Any suggestion that the Department of Commerce has willfully distorted economic statistics is false.

Furthermore, it is preposterous to assume that an error in any economic measurement would present a misleading picture of the economy as a whole. The general strength of the economic recovery that began in the spring of 1975 has been confirmed many times, month after month, by increases in such statistics as industrial production, which are figures issued by the independent Federal Reserve Board, and total employment, which are figures issued by the Labor Department.

Any suggestion that an error in government figures on total unfilled orders by itself would affect business decisions is misleading. It also reveals a lack of knowledge about how business decisions are made. An individual business would make decisions based on its own unfilled orders, not on those supplied in aggregate form by the government.

The survey of unfilled orders, like any survey involving hundreds of business firms, is subject to margins of error and revisions are fairly common. It is grossly unfair, however, to imply that the conscientious professionals at the Census Bureau have wilfully distorted economic statistics.

Statement by John W. Kendrick, Chief Economist of the Department of Commerce, on allegations that a statistical indicator of the Census Bureau, the M-3 Survey of Manufacturers Shipments, Inventories, and Orders, is misleading:

Recent accusations that the Commerce Department has been publishing inaccurate estimates of manufacturers' new and unfilled orders with the intent of deceiving business managements and the public with respect to the state of the economy are false and misleading.

It is true that the M-3 survey of manufacturers' shipments, inventories and orders has been under review for some time. As a result, steps have been taken to strengthen the sample of manufacturers covered, to improve the inventory estimates and to revise the orders series to correct any errors that may have developed. It is planned to publish the revised series as soon as is practicable before the end of the current year.

There is no basis at this time for speculation as to what difference, if any, the revised data would have made on business decisions which are based on many internal and external sources of information. It is a gross injustice to the conscientious statisticians of the Census Bureau to imply that the data were deliberately distorted for political or other ulterior motives.

The confidence which the public places in the integrity of the Census Bureau and other federal statistical agencies is fully merited.

rates, clear the land and sell it on a competitive bid basis to high density apartment builders. The city reasons that the construction will aid unemployment, and the apartment dwellers ultimately attracted will stimulate the central corridor's sagging economy.

Bridgeport, Conn., is aiming at its Long Island Sound waterfront with a novel overhaul of its municipal railroad station. The building will be turned into a specialty and ethnic food market as part of a planned revitalization of the downtown area. Two old theaters will also be rehabilitated.

The grants, along with other federal, state and local funds, and with the support of the private sector, will be used to stimulate new employment opportunities for the poor as well as moderate income groups.

Improving local economies by putting people back to work is not a new idea. What is new is this tripartite, cabinet-level effort which calls for involvement of the private sector right from the start. The public sector cannot offer the unemployed the kind of steady, long-term work they need. This program recognizes that the private sector must create those jobs and has the best chance to do so if it is brought in right at the start. It further recognizes that business cannot be expected to initiate the necessary development—and provides the funds needed to have local government do it.

The program is basically a research and demonstration effort. The ten cities chosen have agreed to document their experiences and make the record available to other cities with similar problems. The cities selected all have problems and proposed development plans that are common to many communities.

The Departments of Commerce, Labor and HUD have had development programs operating in cities across the country for several years. The year programs have much in common but have been run separately. The grants will enable each city to blend public and private efforts into one push for economic improvement and the creation of more jobs.

In the past, economic development at the local level often has been compartmentalized. This joint Community Economic Development program asks these ten cities to bring together—right from the start—their city governments and their businessmen in a joint effort to carry out specific projects.

Energy-Altered Indoor Environments' Impact On Human Comfort Probed

Besides conserving energy and money, what other effects are the building modifications and new thermostat settings having on the comfort of Americans?

A Feb. 11 symposium at Commerce's National Bureau of Standards will explore the impact of energy conservation strategies and new building designs on the thermal comfort of people indoors.

The "Symposium on Thermal Analysis-Human Comfort-Indoor Environments," will bring together leading manufacturers, scientists, engineers, government officials and architects interested in how new energy conservation modifications to buildings will affect human comfort and what type of measurement technology will be required to assess these effects.

Sponsored by the NBS Institutes for Basic Standards and Applied Technology, the symposium is prompted by the increasing emphasis on energy conservation practices in existing buildings as well as new building designs that emphasize energy conservation.

Some of the practices have no effect on the thermal comfort of occupants. However, others, such as limiting the use of both cooling and installed capacity of heating, ventilating, and air conditioning equipment, lower thermostat settings in winter, higher thermostat settings in the summer and eliminating climate control in halls, entryways, and storerooms may have an adverse effect on occupants.

Although the effect of a given energy strategy on the total energy requirements of the buildings is relatively easy to predict, very little data are available to assess the effects of the resulting indoor climate on the comfort of occupants.

The symposium will attempt to examine these issues by identifying:

- Characteristics of indoor climates that result from various types of energy conservation measures;
- Characteristics of heat stress in such environments as ships' firerooms, machinery spaces, and foundries;
- Research needs in the area of physiology that could lead to the specification of acceptable conditions;
- Contributions that could be made by modeling human responses to specific environments;
- Could studies of human subjects be made in controlled environment chambers . . . or would testing in real environments be necessary?
- What new demands are placed on the field of instrumentation in order to correctly assess and characterize environments?

Additional information is available from the symposium co-chairmen: Dr. B. W. Mangum, B122 Physics Building, 301-921-2098, or J. E. Hill, B104 Building Research Bldg, 301-921-3512, National Bureau of Standards, Washington, D.C. 20234.

Study Finds No Need For Special Federal Nuclear Security Force

The Nuclear Regulatory Commission has concluded that there is no need at this time to create a federal security agency within the NRC to protect commercial nuclear facilities from sabotage and nuclear materials from theft or diversion.

The recently-released study concludes that creation of a special security force within NRC would not result in a higher degree of guard force effectiveness than can be achieved through the use of private guards who have been properly trained and certified. The study identifies means by which guard forces could be upgraded through imposing new requirements under current authority and lists actions for which new legislative authority might be required.

The projected nuclear industry covered by the study consists of privately and publicly-owned facilities, most of which are involved in the production and use of nuclear materials as fuel for electric generating plants. It also includes related transportation activities.

Companies licensed by the NRC to conduct such activities are already required to have an NRC-approved physical protection program which includes armed guards, barriers, communications capabilities with response forces, and detection, monitoring, and alarm systems to prevent intrusion of individuals and unauthorized removal of material. NRC is currently reviewing safeguard requirements to determine whether further upgrading is necessary.

Sixteen criteria based on consultants' reports were used to compare the effectiveness of private and federal guard forces, including: general and local security knowledge; mental and physical fitness; alertness; motivation; arrest power; authority to use deadly force; chain of command and controlability during crisis; compatibility in normal operations; liaison with offsite forces; and weapons.

Other issues considered in the study were: the role of offsite reaction forces; administrative implications for licensees and NRC; and the possible use of federal security forces from other agencies.

The study compared the possible comparative impacts on civil liberties of a federal guard force and of private guard forces, and concluded that no difference could be discerned.

A copy of the study, designated NUREG-0015, has been placed in the Nuclear Regulatory Commission's Public Document Room, 1717 H St., NW., Washington, D.C., where it is available for public inspection. Copies may be purchased from NTIS, Springfield, Va. 22161 for $6 each.

INCOMES, PRICES GREW AT ALMOST THE SAME RATE DURING 1975

Rising personal incomes and consumer prices staged a nip-and-tuck race during 1975. Prices won. But not by as much as it might have seemed to some consumers.

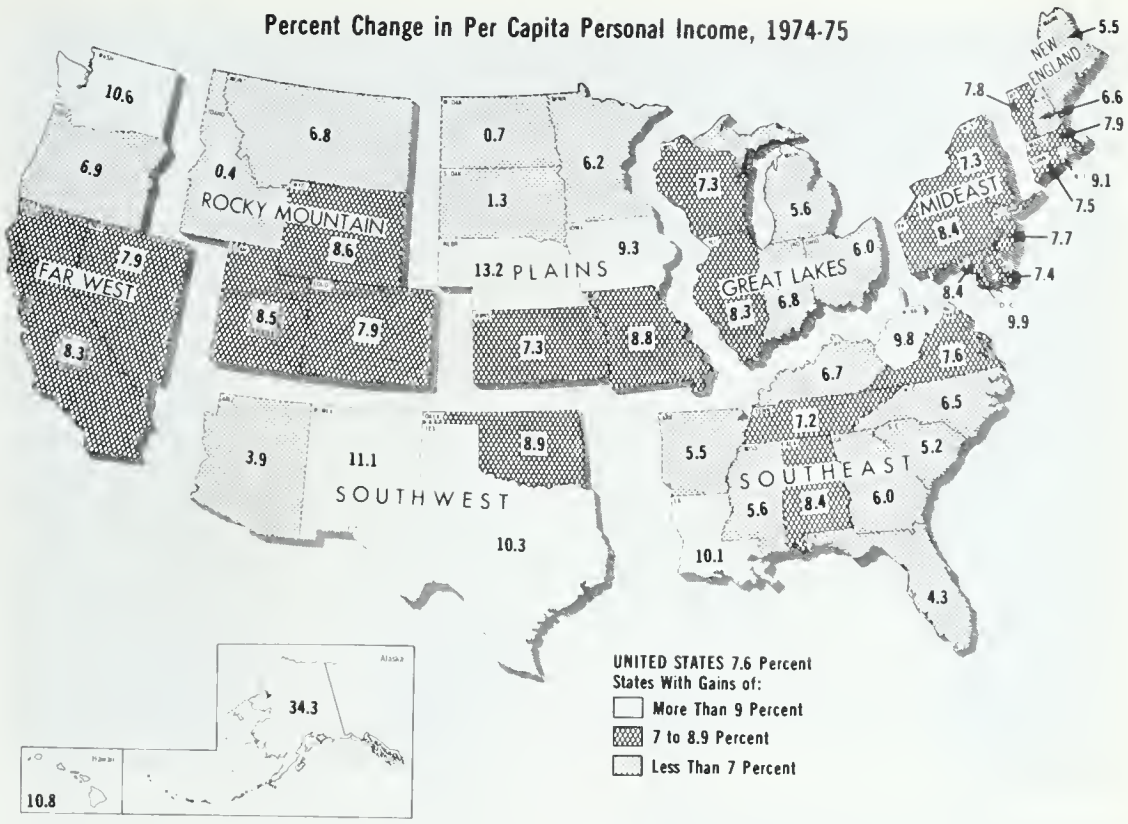
Nationally, per capita income increased by 7½ percent, while the gain in consumer prices was held to only 8 percent in 1975, according to Commerce's Bureau of Economic Analysis.

On a state-by-state basis, Alaska's pipeline-spurred economy had by far the largest per capita income, $9,448, while Mississippi had the lowest, $4,052. The national average was $5,902.

Everyone gained

Total personal income rose in all 50 states and the District of Columbia. Nationally, the rise was 8½ percent. The income rise was bolstered by a 24 percent increase in transfer payments. Excluding transfer payments, U.S. income rose only 6¼ percent.

Mining payrolls advanced 19½ percent, reflecting increased activities in coal mining and oil exploration. Manufacturing payrolls advanced only 1¼ percent. Small declines were recorded in primary metals, electrical machinery, furniture, and textiles. Construction payrolls and farm income were each off about 3 percent. Differences among the states in the performance and relative importance of these industries explain nearly all state variations in total income gains.



States with strong gains

In 12 states, gains in total personal income were especially vigorous, ranging from 38½ percent (Alaska) to 10 percent (Oklahoma). The other states in this group, in descending order of gain, were New Mexico, Nebraska, Wyoming, Texas, Washington, Hawaii, Nevada, Utah, Louisiana, and West Virginia. Gains were industrially widespread and, in many instances, were well above the national average in manufacturing, mining, construction, and service-type enterprises.

Increases in wages and salaries were above the national average in all 12 states in manufacturing. Construction was strong in all except Nevada and Oklahoma. Mining income rose 20 percent or more in West Virginia, Alaska, Wyoming, New Mexico, and Texas. Services were strong in all 12 states. Because of the strength in their economies, advances in government unemployment insurance benefits were well below the U.S. average increase of 160 percent except in Nebraska, Oklahoma, and Texas.

States with weak gains

At the other end of the spectrum, in ten states, income gains ranged from one-half of 1 percent (North Dakota) to 6¾ percent (Minnesota, South Carolina, and Indiana), and real income was down. The other states of this group, in ascending order of gain, were South Dakota, Idaho, Michigan, Ohio, Mississippi, and Maine.

Sharp declines in farm income helped keep the income gains small in Maine, Idaho, Mississippi, South Dakota, North Dakota, Minnesota, and South Carolina. In Ohio, Indiana, and Michigan, small decreases in manufacturing payrolls, mainly due to declines in primary and fabricated metals and in electrical and

Per Capita Income Rank of States, 1975

	Amount ($)	% of nat'l. avg.	$ diff. from avg.		Amount ($)	% of nat'l. avg.	$ diff. from avg.
United States	**5,902**	**100**	—	North Dakota	5,737	97	−165
Alaska	9,448	160	3,546	Wisconsin	5,669	96	−233
Dist. of Col.	7,742	131	1,840	Indiana	5,653	96	−249
Connecticut	6,973	118	1,071	Florida	5,638	96	−264
Illinois	6,789	115	887	Texas	5,631	95	−271
Delaware	6,748	114	846	Missouri	5,510	93	−392
New Jersey	6,722	114	820	Montana	5,422	92	−480
Hawaii	6,658	113	756	Arizona	5,355	91	−547
Nevada	6,647	113	745	New Hampshire	5,315	90	−587
California	6,593	112	691	Oklahoma	5,250	89	−652
New York	6,564	111	662	Idaho	5,159	87	−743
Maryland	6,474	110	572	Georgia	5,086	86	−816
Washington	6,247	106	345	Vermont	4,960	84	−942
Michigan	6,173	105	271	North Carolina	4,952	84	−950
Wyoming	6,131	104	229	South Dakota	4,924	83	−978
Massachusetts	6,114	104	212	Utah	4,923	83	−979
Nebraska	6,087	103	185	West Virginia	4,918	83	−984
Iowa	6,077	103	175	Louisiana	4,904	83	−998
Kansas	6,023	102	121	Tennessee	4,895	83	−1,007
Colorado	5,985	101	83	Kentucky	4,871	83	−1,031
Pennsylvania	5,943	101	41	Maine	4,786	81	−1,116
Rhode Island	5,841	99	−61	New Mexico	4,775	81	−1,127
Ohio	5,810	98	−92	Alabama	4,643	79	−1,259
Minnesota	5,807	98	−95	Arkansas	4,620	78	−1,282
Virginia	5,785	98	−117	South Carolina	4,618	78	−1,284
Oregon	5,769	98	−133	Mississippi	4,052	69	−1,850

nonelectrical machinery, were the dominant factors. Construction payrolls were off sharply in South Carolina, Michigan, and Mississippi.

Because of industrial weakness, gains in services were well below the national average in South Carolina, Indiana, Ohio, and Michigan, and close to the national average in Minnesota.

Total personal income consists of private and government wage and salary payments in cash and in kind, other labor income, farm and nonfarm proprietors' income, interest, net rents, dividends, and transfer payments, less personal contributions for social insurance. It is measured before the deduction of personal income and other personal taxes and is reported in current dollars (no adjustment is made for price changes).

Per capita income equals total personal income divided by total population.

Recession Cut Real Median Income, Dropped 2.5 Million Americans Below Poverty Line

Newly-released figures give some idea of the overall impact of the recent economic slump on the income of Americans.

Median income of U.S. families adjusted for inflation decreased by 3 percent between 1974 and 1975, according to Commerce's Bureau of the Census. During the same period, the total number of persons below the low-income or poverty line increased by 2.5 million or 10.7 percent, according to a nationwide survey taken last March.

The report indicates that the median family income in 1975 was $13,720, 6 percent above the revised 1974 figure but about 3 percent below the 1974 median when adjusted for the 9.1 percent increase in prices between 1974 and 1975. The total number of persons below the poverty line increased from 23.4 million in 1974 to 25.9 million in 1975. This was the largest single-year increase since poverty data became available in 1959. The poverty level for 1975 was $5,500 for a nonfarm family of four.

The decline in real median family income and increase in the number of poor during 1975 was a reflection of several factors: a 2 percent decline in real gross national product (GNP), an increase in the average national unemployment rate from 5.6 percent in 1974 to 8.5 percent in 1975, and an increase in the number of persons who exhausted their unemployment benefits in 1975.

White families in the U.S. had a median income of $14,270 in 1975, black families had a median of $8,780, and families with a head of Spanish origin had a median of $9,550.

The survey data indicate that this represents a 3 percent decline in real median income for white families and an 8 percent drop for families with a head of Spanish origin. Although the data indicate no significant change in real median income for black families, sampling variability was too large for Bureau statisticians to be sure whether a change actually occurred.

The median income for men in 1975 was $8,850; for women the median was $3,390. Adjusted for inflation, the 1975 median for men was about 4 percent below 1974, while there was no significant change in the median for women.

The survey further shows that about 1.4 percent of U.S. families received $50,000 or more in 1975, that nearly 26 percent received $20,000 or more, and that about 44 percent received at least $15,000. About 25 percent received less than $8,000, however.

The number of white persons below the poverty level increased by two million, or 13 percent, and the number of blacks by 363,000, or 5 percent. Poor persons of Spanish origin increased by 16 percent, but the small sample size for this group precludes any comparison of their percentage change to that for blacks and whites. The report notes an increase of 11 percent in the number of poor persons under 65, and increased numbers of poor 65 years and older.

The number of families in poverty increased from 4.9 to 5.5 million between 1974 and 1975. The increase in poor families occurred mainly among those headed by a male, which increased by 16 percent, from 2.6 to 3.0 million. Poor families headed by a female increased by 5 percent, from 2.3 to 2.4 million families.

Copies of the report, *Money Income and Poverty Status of Families and Persons in the United States: 1975 and 1974 Revisions*, Series P-60, No. 103, may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 or from Commerce District Offices in major cities of the U.S. for $1 a copy.

Researchers Question Danger Of Lead-Base Paint

Researchers are questioning the long-held assumption that lead poisoning among small children is mainly caused by eating lead-based paint.

Although lead-paint should still be considered a health hazard, a survey in the Pittsburgh area conducted by Commerce's National Bureau of Standards for the Department of Housing and Urban Development showed no correlation between the paint found in homes and blood lead levels. The study did reveal that children living in the oldest buildings, regardless of the kind of paint, had the highest concentrations of lead in their systems. The reason is still unclear.

The survey data were gathered over the period of a year by teams from the Allegheny County Health Department under contract to NBS. The teams used portable X-ray instruments to measure lead levels in paint on walls and other exposed surfaces in some 4,000 living units and took blood samples from a total of 456 children seven years old and younger.

This work represents the most comprehensive and statistically valid survey and analysis of the lead poisoning problem ever undertaken in a major metropolitan area, according to NBS.

The Bureau has developed a manual for use by local officials in performing lead paint surveys. Titled "Survey Manual for Estimating the Incidence of Lead Paint in Housing," it is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Ask for NBS Technical Note 921; the price is $2.20.

NBS Referral Service To Spur Private Sector Mechanical Testing

Commerce's National Bureau of Standards is initiating a national referral service for industrial academic and engineering organizations requiring high-capacity mechanical testing.

This Mechanical and Structural Testing and Referral Service (MASTARS), is presently compiling a comprehensive MASTAR FILE of all U.S. mechanical testing facilities with capacities exceeding 4.4 million newtons (one million pounds-force), which are available for contract work.

The new service parallels and strengthens the testing and research program which NBS now offers with 12 million pounds-force universal testing machine. This unique facility, considered to be a national resource, is available for use, at cost, to the entire U.S. technological community for work that cannot be done by the private sector.

Prior to inauguration of MASTARS, requests for research and testing services were refused by NBS when required capabilities were available in the private sector. Now, to aid the requester and to stimulate private research and testing, the Bureau will direct inquiries, on an impartial basis, to private laboratories with those capabilities.

To be included in the MASTAR FILE or to obtain NBS research and testing services, interested parties should write MASTARS, EM 219, National Bureau of Standards, Washington, D.C. 20234, or call program manager A. F. Kirstein at 301-921-2621.

Subsidy Keeps Tug-Barge Construction In U.S. Shipyards

Commerce's Maritime Administration has awarded fixed-price contracts totaling $42.5 million for the construction of two integrated tug-barge vessels. Coordinated Caribbean Transport, of Miami, will operate the vessels in service between Miami and Central American ports.

The two integrated vessels will each consist of one barge and one tug. The barges will be built for an estimated total cost of $28.7 million by Manhattan Barge I, a subsidiary of Seatrain Shipbuilding Corp. The tugs will be built in Marinette, Wis. by the Marinette Marine Corp. at an estimated total cost of $13.8 million.

The Maritime Administration will pay 38.05 percent of the construction costs. This disbursement, which will total $16.15 million, represents the difference between the cost of building the vessels in this country and of building identical vessels in Japan, which is the world's lowest-cost shipbuilding center.

First for Great Lakes

This is the first time that a Great Lakes shipyard will participate in the program of subsidizing the construction of vessels destined for service in the U.S. foreign trade.

The ships are known as ARTUBAR (Articulated Tug/Barge) vessels. The tug and barge are connected by means of pins jutting out from either side of the tug's bow. The pins fit into sockets in the recessed stern of the barge. They can rotate in the sockets, allowing the tug to pitch relative to the barge. As an added safety feature, these pins can also retract rapidly, so that the tug and barge can disconnect quickly when necessary.

The 568-foot-long barges will be triple-deck roll-on roll-off vessels that can accommodate automobiles, trailers or other wheeled vehicles. These vehicles will be driven on or off via a bow ramp or through sideports. Each barge will have the capacity for 165 forty-foot-long trailers, including refrigerated units. The approximate gross tonnage of each barge will be 14,000 long tons. The service speed will be 15¼ knots.

The project will provide approximately 760 man-years of employment for shipyard workers and an equal amount of employment for workers in the allied marine supply industry.

SOUTHERN LOUISIANA BUSINESSMEN HONORED—*Featured speakers at a recent awards ceremony held in New Orleans honoring three Southern Louisiana businessmen and the Amoco Production Company were Alex Armendaris, second from left, Director of the U.S. Department of Commerce Office of Minority Business Enterprise (OMBE) and Mrs. Lindy Boggs, member of Congress from Louisiana. Minority businessmen honored at the luncheon were, from left: Ronald Griffith, Lyle Mouton, center, and Jules Alsandor. Amoco Production Company received a Commerce Department Award of Excellence for its minority business enterprise program, which assisted the three. Griffith, a former Amoco employee, formed a construction company for work at drilling sites. His initial contracts came from the Standard of Indiana subsidiary. Mouton, whose story was featured in the last issue of this publication, is also a former employee of Amoco Production Company. His Circle M Supply Company, formed with assistance from Amoco, now does a $1 million a year business providing oil field equipment to several national oil exploration companies. Alsandor received contracts from Amoco Production Company for catering services to offshore drilling sites. He also provides transhipment of deck cargo to offshore sites. In making the award, Armendaris said "Perhaps we are long overdue in recognizing the significant contributions of the private sector to the national effort for parity for minority business. Our industry recognition program will try to seek out companies whose contribution has been significant, and these companies will be recognized, publicly, for their effort."*

Local Solutions Now Allowed In Product Safety Cases

In many instances, minor consumer product safety law-violations can now be resolved at the local level.

The U.S. Consumer Product Safety Commission has delegated to its area offices authority that should speed enforcement and compliance activities involving violation of laws concerning labeling of hazardous substances and child-resistant packaging.

The new procedures are a pilot program and they provide mechanisms for review of area office decisions.

The action became effective October 1, and will allow the area offices to close cases in which the labeling violations are minimal and corrective actions have been taken by violators. The new procedures should bring about increased compliance under the Federal Hazardous Substances Act and Poison Prevention Packaging Act, both administered by the agency, while at the same time, avoid generating a large amount of paperwork or forwarding this paperwork to Washington for review. The new ruling is designed to permit the Commission's staff to devote more resources to cases involving more serious threats to consumer safety.

In the initial stage of the Commission's existence, cases prepared in the field were sent to Washington for approval before they were either forwarded for prosecution or closed. This procedure was used to insure uniform administration of the law. Based upon its own internal study and a report of the Comptroller General, the Commission has concluded that Area Offices now have the experience necessary to decide which cases should be pursued and which should be closed.

The CPSC is an independent federal regulatory agency which has been assigned the primary mission of reducing the risk of injury associated with consumer products.

MORE MEANINGFUL DATA HIGHLIGHT 1977 AUTO FUEL ECONOMY REPORT

One of the Federal Government's perennial bestsellers—the annual mileage guide giving fuel economy performances figures for the new model cars—is almost ready to come off the presses.

A joint effort of the Environmental Protection Agency and the Federal Energy Administration, more than twelve and a half million copies of the 1977 Gas Mileage Guide are being printed for distribution to approximately 25,000 new car dealer showrooms between mid-October and November 1.

EPA performs the gas mileage tests for each new model car at its Ann Arbor, Michigan laboratories. FEA prints and distributes the Gas Mileage Guide.

The Energy Policy and Conservation Act requires that automobile dealers make available in their showrooms copies of the 1977 Mileage Guide. Dealers must display the guides prominently and keep a sufficient stock on hand for prospective car buyers.

One of the principal changes in the 1977 guide is that all vehicles are divided into different size classes, according to their interior size. This will help the car buyer compare the fuel economy of similar-sized vehicles. Automobiles are divided into sedans, station wagons, and two-seaters.

Within the sedan grouping, the classes are:

Subcompact—cars having up to 100 cubic feet of passenger and luggage space.

Compact—cars having 100 to 110 cubic feet

Mid-size—cars having 110 to 120 cubic feet.

Large—cars having more than 120 cubic feet.

The station wagons are:

Small—less than 130 cubic feet of passenger and cargo space.

Mid-size—between 130 and 160 cubic feet inside.

Large—160 or more cubic feet inside.

Another new addition to the guide is the estimated average annual fuel cost for each car. This figure is an estimate of what a new car buyer will pay for fuel in one year, driving 15,000 miles and paying 65 cents per gallon for gasoline, or 55 cents per gallon for diesel fuel.

Mandatory labels

The Act also makes mandatory for the first time that all new 1977 and later model year automobiles, and light trucks, at the time they are offered for sale, carry a label disclosing their fuel economy, the average annual fuel cost for operating the vehicle, and the range of fuel economies of comparable class. Manufacturers are required to affix and dealers are required to maintain the sticker labels on a side window of the vehicle. In previous years, many automobile manufacturers participated in a Voluntary Fuel Economy Labeling Program.

A separate miles-per-gallon booklet entitled, "1977 California Gas Mileage Guide for New Car Buyers" will be published and made available for vehicles sold in that state. Many cars are specially designed for sale in California, which has tougher auto exhaust standards, and are different from vehicles sold elsewhere in the United States.

To obtain single copies of the 1977 Gas Mileage Guide (or the California edition) write after Nov. 1: Fuel Economy, Pueblo, Colo. 81009.

For bulk copies of either guide write after Nov. 1: Fuel Economy, Federal Energy Administration, DPM Room 6500, Washington, D.C. 20461.

Productivity Declined More In Europe, Japan Than In U.S.

Manufacturing productivity, as measured by output per hour, declined more in Japan and most Western European countries than in the United States during the recent worldwide recession, according to preliminary estimates from the Bureau of Labor Statistics of the U.S. Department of Labor.

With the exception of the Federal Republic of Germany, unit labor costs measured in national currencies rose more rapidly in all countries than in the United States.

The Bureau's preliminary estimates for 1975 are based on current economic indicators and are subject to later revision as more complete data become available.

U.S. manufacturing output declined in 1974 and continued to fall until the third quarter of 1975. Productivity fell less than output, however, because of a large decline in aggregate hours.

Manufacturing output also began to decline in 1974 or early 1975 in all of the foreign countries. Output began to increase by the second quarter of 1975 in Japan, and by the end of the year in Canada, France, Germany and Italy.

In Sweden and the United Kingdom, output did not begin to rise until early 1976.

As in the United States, productivity fell along with output and turned upward shortly before the rise in output in the other countries.

Overall, productivity fell less than 1 percent in the United States between 1974 and 1975, compared with declines of 1.5 percent in the United Kingdom, 3 percent in Japan, and larger declines in France and Italy. While the United States had one of the largest declines in manufacturing output, productivity fell less in the United States because there was a corresponding drop in aggregate hours. Sweden had the smallest output decline (−2.2 percent) among the eight countries, and productivity was unchanged from 1974 to 1975.

On the other hand, productivity increased in Canada and Germany, but only because hours fell more than output between 1974 and 1975. Germany experienced a drop in manufacturing aggregate hours even sharper than the United States.

With the exception of Germany, hourly compensation advances from 1974 to 1975 in foreign countries exceeded those in the United States by substantial margins. The increases ranged from 16 percent in Canada to almost 30 percent in Italy and the United Kingdom. The 11.6 percent increase in Germany was only slightly greater than the U.S. increase of 10.4 percent.

Because of the large advances in hourly compensation and declining productivity, unit labor costs rose much more rapidly in all other countries than in the United States, except in Germany and Canada. The increases in unit labor costs ranged from 19 to almost 35 percent in most European countries and Japan. Unit labor costs in West Germany and Canada were similar to the 11.1 percent U.S. rise, as productivity gains offset part of the compensation advances.

Shifts in currency exchange rates increased unit labor costs for Germany, Sweden, and France an additional 5 to 12 percent in terms of the U.S. dollar, while for the other countries currency changes lowered unit labor costs in U.S. dollar terms.

Report Lists Solar Energy Laws Passed By States

Ten states now have legislation providing property tax incentives to homeowners for installing and using solar energy systems.

This is one of the findings in a report just published by the National Bureau of Standards, *A Survey of State Legislation Relating to Solar Energy* was undertaken by the NBS Center for Building Technology to help ensure that the results of state activities are incorporated into federal standards development programs.

The 166-page document contains detailed information on 34 bills enacted by 23 states in 1974 and 1975. Last year alone, 20 or 120 state legislation proposals dealing with application of solar energy

to buildings were enacted dealing with diverse subjects. Most provide a monetary incentive for the conversion to or initial use of solar energy to provide building heating, cooling or hot water. This incentive is usually provided by a reduced property assessment, an income tax reduction, or in a sales, use or corporate exemption.

Other bills authorize building code provisions or standards, research and development, state building uses of solar energy, easement or zoning requirements, and building state solar energy centers.

The ten states with legislation providing tax incentives to homeowners are Arizona, Colorado, Illinois, Indiana, Maryland, Montana, New Hampshire, North Dakota, Oregon and South Dakota. Arizona and New Mexico also provide income tax incentives.

Fifteen states provide for state support of solar energy reseach and development: Arizona, California, Colorado, Florida, Hawaii, Iowa, Maine, Michigan, Montana, Nevada, New Mexico, New York, North Carolina, Ohio and Virginia.

The report includes the number of each of the 34 acts, the approval and effective date, a brief abstract, the legal citation and the responsible state agency and state official. Supporting forms, instructions, and the complete legislation or pertinent pages of the legislation are also included.

Single copies are available from Robert M. Eisenhard, Center for Building Technology, National Bureau of Standards, Washington, D.C. 20234.

TARGETED FEDERAL FUNDS HELP HARD-HIT AREAS SHARE IN ECONOMIC RALLY

As the economic recovery continues apace, Commerce's Economic Development Administration is helping communities across the nation share in the general gains.

A sampling of recent grants and loans approved by EDA follows.

A $7.5 million working capital loan will help the Todd Shipyards Corporation meet operating costs at its shipyards in Alameda, Los Angeles, Galveston and Seattle. All of those cities have been designated for EDA assistance because of high unemployment levels. The agency is also extending for a year its five-year guarantee of a $22.5 million working capital loan of April 1975.

A $6.4 million grant to the Commonwealth of Massachusetts to help carry out an adjustment program and stimulate long-range growth for the fishing industry in Gloucester. Massachusetts officials anticipate that as long as five years may be required for Gloucester to regain the economic viability it enjoyed prior to the early 1960s when changes in international fishing practices undercut the market position of the New England industry.

A $6.2 million grant, to help convert portions of a Lewistown, Pa., rayon plant which has been closed since tropical storm Agnes flooded the area in 1972, into a modern industrial facility. The Mifflin County Commissioners will provide another $2 million to the project, under which 28 buildings in the complex will be renovated, damaged and obsolete facilities will be demolished, water and sewer systems will be upgraded and the area will be landscaped. Feasibility studies will help determine the industries most likely to establish or expand operations at Lewiston.

A $10.5 million grant to the City of Baltimore is helping to overcome the economic dislocations and high unemployment caused by the closing of Fort Holabird and hiring cutbacks by several other major employers in the city. The city is providing another $3.1 million and the Maryland Port Authority $2.9 million to the project which will center on street improvements essential to port service and a new $5.4 million freight terminal for the Maryland Port Administration.

Two grants totaling $6 million are assisting an economic adjustment program to save 300 jobs on the Menominee Indian Reservation in Wisconsin. The project involves renovation of the tribal enterprise's sawmill at Neopit. The funds will enable Menominee Tribal Enterprises to employ a management firm during the construction period and for three additional years.

A $10 million grant to help New York State implement an economic adjustment program designed to save more than 2,000 jobs. The New York Department of Commerce will lend the funds to Al Tech Specialty Steel Corporation to help purchase the Bar Products Division of Allegheny Ludlum Steel Corporation. Purchase of the plant by the Al Tech Corporation will save more than 2,000 jobs, since Allegheny Ludlum Corporation had proposed to close the facilities. The State Department of Commerce will use the repayments from Al Tech to establish a revolving loan fund of low interest, long-term financial assistance for economic development projects in Chautauqua and Albany counties.

A $5 million grant to the Coastal Area Planning and Development Commission of Brunswick, Ga., to help an employee stock option trust acquire 51 percent of the stock of Sea Pak, Inc., a division of W. R. Grace & Co. W. R. Grace officials has announced plans to sell the SeaPak operation or close the facility. SeaPak, with processing plants at Brunswick, employs 558 persons from the coastal Georgia region. W. R. Grace is extending a $4 million loan for the project and National Home Products, Inc., is investing $2 million, which will be used for working capital. The economic adjustment assistance plan calls for the employees to become majority stockholders through acquisition of stock from the trust after eight years.

A $3.5 million loan to help a Roane County, Tennessee, steel mill increase operations and create 246 new jobs. The Tennessee Forging Steel Corporation of Harriman, a manufacturer of bar steel and shapes for the construction industry, will use the loan for working capital to increase production.

A $1 million loan to help establish a fruit processing facility and create 150 jobs in central California. Jovista Cold Storage, of Delano, will use the funds to construct and equip a plant in the Delano-Earlimart area for storing and processing grapes and other fruits. Firm officials estimate that the equivalent of 150 year-round jobs will be created at the facility, with a majority of the new workers representing minority groups. The jobs of another 1,300 workers who harvest the fruits are dependent upon construction of the facility.

A $1 million grant to the Price River Water Improvement District of Carbon County, Utah, for a water line which will be needed to meet anticipated population growth in connection with the development of energy resources in the area. The Water Improvement District is providing the other $3.1 million which will be required.

A $652,650 grant to help stimulate long-range economic growth and create jobs in Lewis and Clark County, Montana. The Joint City-County Airport Board, as an agent for the City of Helena and County of Lewis and Clark, will use the funds to help construct a commercial aviation terminal complex at the Helena Airport. An industrial park is being developed south of the airport in another phase of the long-range program.

A $3.9 million grant to help stimulate long-range industrial growth and create jobs in an inner-city area of Milwaukee. The city will use the grant to help improve vehicular access and other facilities serving the Menomonee River Valley Industrial Area, located just south of the city's central business district. Officials report that the project will eliminate traffic hazards which have restricted development of the industrial section and will improve access to other business and commercial areas in Milwaukee.

Calendar Of Business Events

Oct. 13-14—Gaithersburg, Md. — Symposium on Procurement Practices, National Bureau of Standards. Sponsors: NBS and General Services Admin. For information, Joseph Berke, Experimental Technology Incentives Program, A 735, Admin. Bldg., NBS, Washington, D.C. 20234 (301-921-3171).

Oct. 13-15 — San Francisco — Fundamentals of Finance and Accounting for the Non-Financial Executive, Fairmont Hotel & Tower. Sponsor: The Wharton School. For information, Heidi Kaplan, New York Conference Mgt. Ctr., 360 Lexington Ave., New York 10017 (212-953-7262).

Oct. 14—Nov. 4—Houston—Computers in Small Business: Increase Productivity and Profits weekly course. Sponsor: Rice University. For information, Office of Continuing Studies, Rice U., Houston, Tex. 77001 (713-527-8101).

Oct. 15—Tulsa—Business Opportunity/Federal Procurement Conference, Sheraton Inn-Skyline East. Sponsor: U.S. Rep. James R. Jones. For information, Jerry Conrey, c/o Rep. Jones, 4536 Fed. Bldg., Tulsa, 74103. (918-581-7111).

Oct. 16—Madison, N.J. — 13th Annual Patent Institute, Fairleigh Dickinson Univ. For information, Joseph Tramutola, Jr., Fairleigh Dickinson Univ., 285 Madison Ave., Madison, N.J. 07940 (201-377-4700).

Oct. 17-21—Philadelphia—American Assn. of Port Authorities annual convention, Bellevue-Stratford Hotel. For information, AAPA (202-331-1263).

Oct. 18-19—Chicago — Modern Alternatives to Franchise Marketing, Hyatt Regency O'Hare. Sponsor: New York Univ. For information, Heidi Kaplan, N.Y. Conf. Mgt. Ctr., address above.

Oct. 18-19—Montreal, Que. — Proposed Preparation and Source Selection Seminar, Hotel Bonaventure. Sponsor: American Insitute of Aeronautics & Astronautics/Los Angeles Section. For information, AIAA Seminars, Suite 1403, 444 W. Ocean Blvd., Long Beach, Calif. 90802, (213-437-7465).

Oct. 18-19—New York—Current Developments in Environmental Regulation and Litigation, St. Moritz Hotel. For information, Practising Law Institute (212-765-5700).

Oct. 18-19—New York—Transportation of Hazardous Materials by Air seminar, International Hotel, JFK Int'l Airport. For information, Lou Maripolsky, Flying Tiger Line, Cargo Bldg. #262, JFK Int'l Airport, Jamaica, N.Y. 11430 (212-632-1121).

Oct. 18-20 — Chicago — Managing EDP Personnel, Univ. of Chicago. For information, Heidi Kaplan, New York Conference Mgt. Ctr., see address above.

Oct. 18-20—Houston—Solar Energy for Domestic Heating and Air Conditioning, Warwick Hotel. Sponsor: New York Univ. For information, Heidi Kaplan, New York Conference Mgt. Ctr., see address above.

Oct. 18-20—New York—Research & Development Mgt. seminar, Barbizon Plaza Hotel. Sponsor: New York University. For information, Heidi Kaplan, N.Y. Conference Mgt. Ctr., see address above.

Oct. 18-20—San Diego—Machining Seminar, Islandia Hyatt House. Sponsor: New York Univ. For information, Heidi Kaplan, N.Y. Conference Mgt. Ctr., see address above.

Oct. 18-21—Orlando, Fla.—Fire Retardency in the Construction Industry, Walt Disney World. For information, Fire Retardant Chemicals Assn., Suite 800, 1001 Connecticut Ave. NW., Washington, D.C. 20036 (202-452-1531).

Oct. 18-22—San Francisco — Fundamentals of Plastics, Burlingame Hyatt House. Sponsor: New York University. For information, Heidi Kaplan, New York Conf. Mgt. Ctr., address above.

Oct. 19-20—San Francisco—Energy Management in Buildings, Holiday Inn Golden Gateway. Sponsor: New York Univ. For information, Heidi Kaplan, New York Conference Mgt. Ctr., see address above.

Oct. 19-20—Washington—Economics and Marketing of Plastics Conference, Hotel Washington. For information, Al Evans, Society of the Plastics Industry, Inc., 355 Lexington Ave., New York 10017 (212-573-9400).

Oct. 19-21—Cleveland—Controlling Noise Hazards in Manufacturing, Sheraton Hopkins Airport Hotel. For information, Jim Meadows, Society of Manufacturing Engineers, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500).

Oct. 19-21—Las Vegas—8th Annual Automotive Parts & Accessories Assn. Show, Convention Center. For information, AAPA, 1730 K St. NW., Washington, D.C. 20006 (202-833-3450).

Oct. 19-21—St. Paul, Minn. — Minnex Electronic Manufacturing Conference and Exhibits, St. Paul Hilton Hotel. Sponsor: Society of Manufacturing Engineers. For information, SME, P.O. Box, 930, Dearborn, Mich. 48128 (313-271-1500).

Oct. 19-21—Washington—Finance & Accounting for Non-Financial Managers, Georgetown Univ. For information, Betsy Girton, Continuing Mgt. Education, Georgetown Univ., RCA Bldg.-Education Ctr., 1901 N. Moore St., Rosslyn, Va. 22209 (703-525-6300).

Oct. 24-26—Andover, Mass.—Business & Investment Opportunities in Distributed Data Processing Systems, Andover Inn. For information, Institute for Graphic Communication, Inc., 375 Commonwealth Ave., Boston, Mass. 02115 (617-267-9425).

Oct. 24-26—Carmel, Calif.—Prospects for Micrographic Systems, Highlands Inn. For information, IGC, address above.

Oct. 24-27 — Hanover, N.H. — Smaller Business Assn. of New England Executive Seminar, Dartmouth College. For information, Julie Scofield, SBANE, 69 Hickory Dr., Waltham, Mass. 02154 (617-890-9070).

Oct. 25-29—Chicago—Bicentennial Quality Control Conference, Museum of Science and Industry. For information, John Blazjak, 782 Burr Oak Dr., Westmont, Ill. 60559 (312-325-3312).

Oct. 25-29—Chicago—National Packaging Week Int'l Exposition & Assembly, McCormick Place. For information, Packaging Machinery Manufacturers Institute, 2000 K St. NW., Washington, D.C. 20006. (202-331-8181).

Oct. 25-29—Greenville, S.C. — American Textile Machinery Exhibition Int'l, Textile Hall. For information, ATME-I, P.O. Box 5823, Greenville, S.C. 29606 (803-233-2562).

Municipal Employment Shows Slight Rise

City government employment rose less than 1 percent in 1975, the lowest recorded increase since 1962, according to Commerce's Bureau of the Census.

Municipal governments in the United States made salary and wage payments for the month of October 1975 (used as a sample) amounting to $2.1 billion, an increase of 7.3 percent over October 1974. This sum made up the payroll for 2,508,000 employees—2,038,000 full-time workers and 468,000 part-time employees—a 0.6 percent increase over 1974.

Copies of *City Employment in 1975* are available at 65 cents each from the Subscriber Services Section (Publication), Bureau of the Census, Washington, D.C. 20233 or from Commerce district offices.

Interest Whetted Abroad For New U.S. Products

NEWSLETTERS OF AMERICAN EMBASSIES, CONSULATES SPREAD WORD GLOBALLY ABOUT INNOVATIVE ITEMS

We have a new product—a fast-erection steel frame and plastic surface building—and out there in the wide, wide world are buyers for it, if only we can tell them about it.

This was the gist of a message from executives of Seaman International in Sarasota, Fla., to an official at a Commerce Department District Office in that state.

A small firm not exporting on a regular basis, and eager to move its new product into world markets, Seaman was looking for suggestions. The response from the Commerce Department international trade specialist was to place a description of the Seaman building in a "New Products USA" listing that is part of a Commerce newsletter sent to several hundred American Embassies and Consulates abroad.

At one of these posts, the Embassy in Lagos, Nigeria, the announcement was transmitted to Nigerian authorities faced with a glut of unprotected cargo at the airport. The authorities learned that the Florida firm's building system, called Portomod, features a rigid clear span steel frame structure with coated vinyl polyester roof and sidewalls, that can be erected quickly, and may be easily extended or disassembled and relocated. Inside, the building is free of pillars and posts; the trusses provide places for hanging lights, sprinkler systems, and other facilities. Thus, the structure has a variety of uses, such as for warehouses or sports activities or exhibitions.

Arrangements moved quickly: the Nigerian officials made known their interest to the U.S. Embassy; Embassy officials communicated with Seaman, and Seaman concluded the sale. Within a matter of days, the firm's warehouses were in place—having been air-freighted direct from Miami to Lagos. The order was for eight buildings, totaling about $400,000. Additional orders valued at about $1 million, in the Middle East and North Africa, are pending.

Last September, the "New Products USA" listing carried an announcement for United States Trading International, Washington, D.C., about Pro-Tec, a new type of protective coating for ship hulls. Through the Paris U.S. Embassy's republication and dissemination to major government and industry representatives throughout France, the announcement reached a Marseilles shipyard in November. Shipyard officials communicated with the U.S. firm, which supplied its product brochure and other information. In January, a company executive went to the French firm's New York office for talks. By spring, a $50,000 order was concluded on coating for a 190,000-ton tanker in Marseilles. More recently, through the same steps, the U.S. company concluded an order for coating a 325,000-ton tanker in Japan. Negotiations are under way with some 50 firms in other countries.

To potential buyers abroad

The vehicle for this introduction to important customers abroad is called The Commercial News for the Foreign Service, issued bi-monthly and distributed out of Washington to about 240 U.S. foreign posts. In every issue is the section listing selected new products available for export, as collected from American firms through Commerce's New Product Information Service. This export promotion is offered to help U.S. companies introduce new products in foreign markets. Many of the posts extract the data and reprint it in their own individual newsletters which are tailored in design, content, and language to local needs. Currently 60 to 70 overseas Commercial Newsletters have a combined circulation of over 100,000. This process includes, as might be expected, disclaimers on individual product performance.

Testing the effectiveness of the new product service recently, Commerce Department officials surveyed about 200 U.S. companies, selected at random from the 750 firms that participated in the service in 1975. It was determined that the surveyed companies had received more than 6,500 inquiries, had made sales of more than $3 million, and were negotiating with about 160 agents as a result of their announcements. Of 20 of the most successful participants, half had received over 50 inquiries each, four had received more than 400 each, and one, Houston Export Management Co., Fort Worth, Tex., offering a cordless telephone extension, had received 568 from 38 countries. The Republic Electronics Corp.'s Marine Division, Arlington, Va., though it had not yet concluded sales of its "Contra Prop Boat," had 10 agents under negotiation and saw a potential for an estimated $3 million worth of business.

Several products of Edward J. Fay & Associates, Inc., Houston, Tex., have been announced in the Newsletter. "On one item, a new type gas filter," President Edward J. Fay wrote, "we have had over 200 inquiries. On another, Span Spray low-volume sprayers, we are receiving a steady flow of inquiries."

Ward International, Granada Hills, Calif., requesting a second new-product announcement about a year after the first had been published, said that inquiries were still coming in regularly on its Sight-Light flashlight. "Just the sample orders received thus far as a direct result of your write-up in Commercial News now exceed $600. In addition, we have received one initial bulk distributor order (from Italy) and are negotiating on other distributorship arrangements in various countries of the world. Commercial advertising in export publications has never given this kind of response and that is the reason we are most anxious to arrange for coverage of another product as soon as possible."

For a new product listing, a product is considered new if it has been offered for sale less than two years on the U.S. market, and is presently not exported to more than three countries on a regular basis. Because many more requests are received than can be published, some other circumstances are used in making the publication decisions. Further information may be obtained from any Commerce District Office or from Constance L. White, Bureau of International Commerce, Room 4009, U.S. Department of Commerce, Washington, D.C. 20230, telephone, 202-377-5783.

Multilateral Trade Negotiations

This article is another in a series of progress reports on the multilateral trade negotiations, prepared by the Commerce Department Office of Int'l Trade Policy.

WASHINGTON

The blue ribbon **Advisory Committee for Trade Negotiations** (ACTN) held its fourth meeting at the Department of Agriculture. The Sept. 9 session, chaired by Ambassador Frederick B. Dent, the President's Special Trade Representative, was devoted to the agricultural products situation in the Geneva Multilateral Trade Negotiations and a team of top officials reviewed U.S. agricultural progress, policies and export aspects. The committee had met at the Labor Department in May, and will convene at Commerce Nov. 16 to hear Secretary Richardson and other officials discuss industrial issues.

A U.S. **trade policy team** recently completed a trip to Brazil, Colombia, Argentina, Uruguay, Venezuela and Costa Rica to discuss aspects of the Geneva trade negotiations. Topics ranged from tropical products, tariffs, framework improvement, subsidies and countervailing duties to safeguards, quantitative restrictions and agriculture. The team, led by Deputy Special Trade Representative Clayton Yeutter, said that all participants welcomed the willingness of the U.S. to discuss negotiation problems with them.

Presentations were made Sept. 20-30 to the 27 **Industry Sector Advisory Committees** (ISACs) on the issues of supply access and of MTN rules and procedures for exceptions to a tariff reduction formula. Members received a first review from the U.S. negotiators of the collective advice they had submitted on major issues.

Concerning **access to supplies** of raw materials and the use of export restrictions, ISAC members were told that the U.S. positions are still being developed and that preliminary thinking is being guided by two approaches suggested in the Trade Act of 1974. Section 108 sets a primary priority for supply access agreements and permits the negotiation of reciprocal agreements assuring the availability of supplies needed by the U.S. Section 121 directs the President to seek improved international rules and procedures governing use of export controls.

The U.S., both an importer and exporter of primary materials and commodities, has been promoting MTN discussion of concessions on access to supplies of particular products and of rules governing export controls. To date, however, the supply access issue has not been formally recognized as a negotiating topic. The European Economic Community and Japan, with the greatest supply problems, have been reluctant to take the lead in seeking action. Resistance from developing countries and important developed country suppliers is also partly responsible for the inaction.

To introduce the supply access issue and provide necessary background information, the U.S. is preparing a list of export controls of particular concern to domestic producers and traders which will be notified to the GATT Inventory of Nontariff Measures. This project also serves to prepare the data necessary for the U.S. to seek specific commitments on access to supplies of particular products. Identification of particular supply access problems could become the basis for bilateral consultations and negotiation of specific commitments in appropriate MTN groups.

The U.S. also is considering how to improve and strengthen provisions of the GATT and other international agreements governing access to supplies of food, raw materials, and manufactured or semi-manufactured products. This includes rules and procedures governing the imposition of export controls, the denial of fair and equitable access to supplies, effective consultations procedures, and dispute settlement procedures. An interagency task force has initiated discussions of possible provisions the United States should be seeking.

With respect to **rules and procedures for negotiating exceptions to a tariff reduction formula**, the ISAC members were briefed on the development of such rules. During the Kennedy Round of GATT Negotiations (1962-67) the general rule for exceptions to the 50 percent linear reduction formula was a vague call to hold exceptions "to a bare minimum" and to take exceptions only in case of "overriding national interest." This rule was combined with a "confrontation and justification" procedure whereby each formula country proposing exceptions was confronted by the other formula countries and required to justify the proposed exceptions. After this exercise, bilateral negotiations among all the participants took place. In some cases the bilateral negotiations resulted in countries reducing exceptions (EEC, Japan) and others increasing them (U.S., U.K.).

Rules and procedures for exceptions to a tariff reduction formula are significant because they help establish the scope of the negotiation by limiting deviations from the formula and thereby provide some discipline. Such rules also provide a bridge from the multilateral to the bilateral phase of negotiations.

To date there has been limited discussion and no agreement on rules and procedures for exceptions. However, there is a consensus in the Tariffs Group that countries should show "great restraint."

If the pattern of the Kennedy Round were followed, rules for exceptions would include the concept of a ceiling ("bare minimum") on total exceptions and of a standard ("overriding national interest") to be met for each exception.

The concept of a ceiling could be contained in qualitative or quantitative rules, or both. For example, a ceiling on total exceptions could be set quantitatively as a percentage of tariff lines, or as a target depth of tariff cut. Qualitatively, the ceiling could be set at a "bare minimum" of exceptions as in the Kennedy Round, or at a similar criterion. Another option would be to use both qualitative and quantitative criteria.

The concept of a standard also could be contained in qualitative or quantitative rules, or both. For example, a quantitative standard for each exception could be a minimum percentage increase in imports or import/consumption ratio, while a qualitative standard could be "national security" or "import sensitivity." These criteria could be used separately or together, as in the concept of a ceiling.

It is noteworthy that President Ford at the Puerto Rico economic summit in June suggested a quantitative ceiling when he stated that the Tokyo Round ought to accomplish as great an overall reduction in tariffs—about 35 percent—as did the Kennedy Round.

It is hoped that early next year the MTN Tariffs Group can agree upon the three principal elements of the tariff negotiations: the tariff reduction formula; rules and procedures for exceptions; and special and differential treatment for LDCs.

ISAC activity over the next six months will be concentrated on efforts in individual committees to identify and delineate the negotiating objectives of the various industry sectors and sub-sectors.

MTN Meeting Calendar

The fall schedule in the Multilateral Trade Negotiations in Geneva includes:

Oct.18, Tropical Products; Oct. 20, NTM Subgroup on Government Procurement; Oct 25, NTM Subgroup on Customs Matters; Oct. 27, Safeguards.

Nov. 1, NTM Subgroup on Quantitative Restrictions and Import Licensing Procedures; Nov. 8, NTM Subgroup on Standards; Nov. 24, NTM Subgroup on Subsidies and Countervailing Duties.

Dec. 9, Nontariff Measures.

Open dates: Tariffs, Agriculture (and its subgroups on Dairy, Meat and Grains).

WITH AUTOMAKERS IN JAPAN—*During recent U.S. trade mission visit, Jack H. Schofield of Loctite Corp., center in photo above, talks with prospective customers in Nagoya about his adhesives and sealing materials. Photo at right shows M. J. Moriarty (right) of Powerformance International Corp. explaining details in Tokyo about his gapless piston rings.*

JAPAN'S AUTOMAKERS SEEN USING MORE U.S. PARTS, TRADE MISSION REPORTS

Japanese automobile manufacturers are increasingly receptive to the use of more American parts and components, a recent U.S. trade mission found.

Encouraged by reports of record earnings by major Japanese automakers, six senior-level automotive parts and equipment executives and a market research company director visited Tokyo, Osaka and Nagoya in search of promising new business contacts. The executives talked with some 200 manufacturers. Mission Director Alton B. Ashendorf of the Commerce Department observed that, although the Japanese were in virtual agreement that price and quality are the primary considerations when determining from whom they will buy, the majority of those interviewed indicated great interest in obtaining a larger percentage of their requirements from U.S. suppliers. This trend stems partly from the feeling of Japan's car makers that they have finally broken the dominant position of Germany's Volkswagen on the small car market in the United States, Ashendorf notes. Combined, the "big three" of Japan's automobile industry — Toyota, Nissan and Honda—reportedly delivered some 350,000 passenger vehicles in the United States during the first half of this year.

As the Japanese tend to approach new business relationships with extreme caution, and since the products being offered by several of the mission members either represented advances in automotive parts technology or required distribution through original equipment manufacturers, testing and approval usually are necessary before lasting business relationships can materialize. The products of these companies are being tested, and results of these tests should be forthcoming in the not-too-distant future.

The businessmen toured Nissan's Zama final assembly plant, the Sagamihara parts warehouse, and Toyota's engine and final assembly plants.

"Without Commerce and State Department assistance, a small company like ours could never have secured access to such industrial giants as Nissan or Toyota," said Ralph Schwarz, president of Florida Production Engineering Co., a Daytona Beach-based firm that specializes in designing and producing automobile wheel covers with a patented retention system.

Although Schwarz had hoped to locate, and contract with, outlets through which his wheel covers might be sold, his discussions with Japanese businessmen disclosed that the most effective method of obtaining market penetration would be to appoint a licensee in Japan. This possibility is presently being evaluated and considered.

Substantial sales seen

Harry A. Jensen, manager of the international division of K & W Products, Inc., Whittier, Calif., a new-to-market firm offering automobile maintenance products, liquid metallic seals, and radiator seals, said: "From this mission we have gained important knowledge necessary to be successful in this market. We received at Nagoya a trial order from a large trading company that probably will lead to a very large volume."

At the windup of their visit, members reported direct sales of $46,600, and project orders in the next 12 months at more than $1 million. Three agreements were concluded.

Members of the mission, in addition to Schwarz and Jensen already mentioned were: Anthony J. Cruz, J. P. Stevens & Co., New York; Rikuma Ito, Market Research Group, Inc., Farmington Hills, Mich.; M. J. Moriarty, Powerformance International Corp., Phoenix, Ariz.; Paul E. Moss, Paul E. Moss & Co., Valley Stream, N.Y.; and Jack H. Schofield, Loctite Corp., Newington, Conn.

COMMUNICATION SYSTEMS: MISSION FINDS GROWING MARKETS IN FAR EAST

Favorable economic trends in Singapore and Thailand, and ambitious development programs in both countries, are contributing to the growth of communications equipment markets in the area. A U.S. trade mission returned last month with a list of products for which tenders soon will be issued in Singapore, a round-up of telephone system improvements in Thailand, and a "good sales prospects" appraisal for Hong Kong.

Products represented by the six-member mission included broadcast transmitters and antennas, telecommunications ground stations, data communication computer terminals and no-heat shrinkable tubing, microprocessors, electronic equipment for telephone line conditioning and signaling, remote control and supervisory equipment, anti-wire tapping and de-bugging equipment, scramblers, and consulting services for telephone, telex microwave, cable, satellite and multiplex systems. For some of these products, interest varied from "keen to intense," according to Mission Director William J. Bushwaller of the Commerce Department.

In Singapore, the mission was briefed extensively by Goh Seng Kim, General Manager of the Telecommunications

PERSON-TO-PERSON COMMUNICATION — *At mission's Business Information Center in Siam Intercontinental Hotel, Bangkok, Justin P. Carlino (left) and mission leader William J. Bushwaller (standing) talk about U.S. equipment with potential buyers. Photo at right: James A. McCalmont (right), at Singapore U.S. Trade Center, jots down details discussed.*

Authority of Singapore (TAS). The authority is in the second year of a five-year development program which involves capital investments of $400 million for the period 1975-80. Some of the major purchase areas and projected time frames during which tenders may be expected were outlined by Goh as follows:

Electronic switching equipment (stored program control exchanges) for about 500,000 lines: estimated cost, $60 million; tender, October 1976.

Underground cable: next tender, November 1976, for D-shield cable (trunk line); other tenders for standard cable will be issued throughout 1977. TAS is interested in optic fiber technology and may consider buying cables using optic fibers in 1978-79.

Pulse code modulation equipment: two tenders have already been won by ITT and NEC, but additional tenders are to be issued toward the end of 1977.

International switching center (gateway telephone exchange): to be installed in TAS's new headquarters building scheduled to open in 1979, tender in October or November 1976.

Submarine cable projects: The ASEAN countries are finalizing plans for a number of new underwater cables to connect the countries of Southeast Asia. The first project will be a 14 mega Hz cable link from Luzon in the Philippines to Singapore to be completed by 1979; tenders for this project and a HongKong-Kuantan (Malaysia)-Singapore cable project could be as early as the first half of 1977; others under consideration are a Singapore-Jakarta cable and Singapore-Penang-Indian Ocean cable.

Electronic data processing equipment: TAS currently operates two large UNIVAC computers and has plans for a third main frame within a couple of years; TAS's new data processing service with telephone hook-ups is expected to be operational in October 1976; TAS has a continuing interest in multiprocessors, teleprinters, and other types of peripheral equipment.

Earth satellite station: TAS currently operates two satellite antennas on Sentosa Island; although plans are not firm, there may be a need for a third satellite dish when Intelsat V is inaugurated.

Communications equipment for new airport: toward the end of 1976, TAS will begin tenders for about $40 million of equipment for Changi Airport.

Developments in Thailand

In Bangkok, the mission was briefed by officers of the American Chamber of Commerce of Thailand, and by Ananda Sharn Prapai, Deputy Director General of the Telephone Organization of Thailand (TOT), who outlined that organization's ambitious development project through 1984.

Rapid economic development in Thailand during the past decade has brought about a serious shortage of telephone services. Upon completion of TAT's current development plan in 1979, however, long distance telephone service throughout the country will be fully automated. All terminals are being upgraded from electromechanical to computer. Concentration is on the domestic network, and the organization is going into microwave and VHF for up-country communication. Current interest was expressed in a domestic satellite program. Overseas communication is based mainly on satellite, as no submarine cables are yet available. However, the first stage of a submarine cable program, to connect Thailand with Singapore and Malaysia, is expected to be implemented during 1979-80.

Despite the rapid improvements in telephone service now under way, shortages of telephones will continue to exist. Ananda expressed an interest in having a manufacturing facility set up in Thailand by a U.S. company which would service the entire South East Asian area. Copies of TOT's Economic Development Project (1977-84) may be obtained from Thomas C. Moore, Room 4126, U.S. Department of Commerce, Washington, D.C. 20230; phone, 202-377-2522.

In Hong Kong, the mission received wide press coverage and strong interest was shown in some of the products offered—including voice and data communications security devices, anti-tapping and de-bugging equipment, and protective and countersurveillance equipment.

Members of the mission, and the firms they represented, were: Bruce D. Buck, CCA Electronics Corp., Gloucester City, N.J.; Justin P. Carlino, MERI Corp., Mountain View, Calif.; Jack T. Griffith, Teleconsult, Inc., Washington, D.C.; James A. McCalmont, Technical Communications Corp., Concord, Mass.; Joseph K. Post, Pulsecom Division of Harvey Hubbell Inc., Falls Church, Va., and George J. Scanlon, Communications Control Systems, Inc., New York. The participants sold more than $3 million worth of equipment, and project some $5 million in additional business in the next 12 months. All are likely to establish agencies or distributorships, Bushwaller reports, if appropriate follow-up is maintained.

HEADED FOR WORLD MARKETS—*Traveling display of the American Textile Machinery Assn. was unveiled recently to Commerce Department international trade specialists who will help the association present it to textile producers in such target markets as Mexico, Egypt and other Latin American and Middle Eastern nations. From left: Graydon R. Powers, Jr., ATMA Exec. Vice-pres.; Dr. Peter von Bucher, Chemtex; John J. Baughan, Draper Div., Rockwell International; Henry H. Richardson, ATMA marketing director, who accompanies the exhibit; Marshall Fulp, Bahnson Co.; Richard Garnitz, director of Commerce's Office of International Marketing, and T. J. Jackson, Commerce textile machinery industry specialist. Display includes synchronized tape-slide show of latest products of ATMA's 121 member companies.*

U.S. FURNITURE 'HAS ONLY BEGUN TO SELL' IN U.K.; EXHIBITION SCORES

Enthusiastic acceptance of a wide range of products that had hitherto rarely been exported was the upshot of a recent exhibition at the U.S. Trade Center in London, as 23 companies—many exporting for the first time—displayed American furniture and furnishings. U.S. furniture "has only begun to sell" in Great Britain, Embassy officials observe, and the potential is for sizable expansion now and over the long term.

Almost 1,000 trade visitors attended the exhibition, resulting in the signing of four sales representatives, 15 more under negotiation, and immediate sales of nearly $400,000. Moreover, the exhibitors predicted an additional $32,130,000 to follow within a year. "If we can't sell at this exhibition," said John Wolstenholme, European marketing director for Armstrong Cork Co., "then we can't do business in Britain, because everybody is here."

Several factors have made the extraordinary results of this exhibition possible. On the demand side, the large British furniture market—$1 billion a year in residential furniture alone—has recently suffered from a high rate of inflation (more than double that of the United States) and long delivery times (because of manufacturer's reluctance to invest in inventory). At the same time, American suppliers have benefited from superior raw material resources, improved packaging methods and efficient freight containerization. As a result, an industry that had never been considered export-oriented has found itself competitive in the U.K.-European market.

Both wooden and upholstered furniture were among the exhibition items offering the best sales potential, as were decorator and specialty lamps and occasional furniture. Carpets are not generally competitive in the United Kingdom because of high tariffs and shipping costs.

Industrial Development In Taiwan Spurs Market For Laboratory Equipment

As the Republic of China's industries become more technologically sophisticated, advanced laboratory equipment will be required in such areas of the economy as electronics, textiles, petrochemicals, food-processing, medical and health-care, pharmaceuticals, and metalworking—where quality control and analytical precision are essential.

Results of the recent laboratory instruments exhibition at the U.S. Trade Center in Taipei confirm that, given Taiwan's policy favoring imports of technology-intensive equipment from the United States, American firms are likely to continue to enjoy substantial sales opportunities.

Seventeen exhibitors, representing 26 U.S. manufacturers, displayed and demonstrated their most advanced equipment for physical and chemical analysis, biochemical and clinical analysis, temperature measurement, and laboratory support activities. Government officials, scientists, researchers, scholars, engineers, technical personnel, importers, and manufacturers attended. Floor sales reached some $250,000, and 12-month projections, $2.8 million.

U.S. equipment is known in Taiwan for its precision, ease of operation, and time- and labor-saving features, and U.S. laboratory instruments are recognized to be far superior in quality to those available from other sources. Prices of locally-produced, technologically-simple laboratory items such as centrifuges, pH meters, and water-bath devices, are expected to decline in the next two or three years as a result of increased local production. More expensive sophisticated instruments, which cannot be produced locally, will continue to be imported. Japanese and West German suppliers are U.S. manufacturers' key competitors.

WEIGHING BENEFITS—*Visitors at the recent Taipei U.S. Trade Center's laboratory instruments exhibition consider the advantages of Ohaus balances, as detailed by Jackson Lee (in light shirt), company representative.*

OPPORTUNITIES, APPROACH OUTLINED FOR NEWCOMERS TO THE FRENCH MARKET

France is not the biggest market in the world for U.S. products, and it is not the easiest one to break into. But it is big enough and easy enough to merit careful study by American exporters with the right kind of products to offer and a willingness to meet the French importer half way in getting those products to the customer.

This article, by John Q. Blodgett, Commercial Officer at the U.S. Embassy in Paris, is addressed to the small to medium-sized U.S. manufacturer who is ready to export and is prepared to invest the care, resources and management attention necessary to move in on a growing—but highly competitive—market of 53 million in the heart of the European Common Market. The product line should be one with demonstrated sales potential in an industrialized country and could cover anything from simple consumer products to highly sophisticated capital equipment.

Why France?

- France is the sixth biggest U.S. market; our 8 percent market share is worth $4.2 billion and rising.
- France is accustomed to importing nearly 20 percent of its GNP; the transportation, warehousing, forwarding and marketing infrastructure is already in place and functions well.
- U.S. products are highly regarded in the French market by both private consumers and industrial end-users.
- As elsewhere in the EEC, import duties on industrial goods are reasonable and non-tariff barriers affect only a limited range of items.
- Under the present exchange rate structure, American products can compete with those from other import sources (even within the EEC), and French domestic price levels are rising more rapidly than ours. These factors are, of course, transitory and of little relevance to a long-range marketing strategy.
- France, with ports on both the Atlantic and Mediterranean, is a good forward base for the development of further markets in the EEC, Eastern Europe, Africa and the Middle East; many U.S. companies serve these areas from headquarters in Paris.
- France's industrial base, though developing rapidly, is incomplete in some areas, such as textile weaving, printing and graphics, earthmoving equipment, chemicals, office equipment, environmental control instrumentation, medical and laboratory equipment, microwave and EDP electronics, among many others; items such as these are largely imported and the United States has a technological edge in most of them.
- U.S. Government and other facilities for assisting American exporters in attacking the French market are unusually extensive. There is a modern, well-equipped and highly active U.S. Trade Center in Paris with promotional events throughout the business year. The U.S. Embassy's Commercial Affairs Branch has a strong staff of commodity specialists, both in Paris and in the five regional consulates, to assist exporters in researching the market and identifying trade leads and suitable representation. There is a well-established American Chamber of Commerce in France, and a wide choice of locally-based American banks, lawyers, research firms and marketing consultants. There is a large assortment of well-conducted trade shows in France every year, with attendance from all parts of Europe, Africa and the Middle East. For information about all these government and private facilities, exporters should consult the nearest Department of Commerce District Office.

What are the problem areas?

▸ The French, like Americans, prefer to see product literature, invoices, labels and correspondence in their own language. French legislation requiring this goes into partial effect Jan. 1, 1977. Even if this legislation is not vigorously enforced it is in the exporter's interest to develop French material for the French and other francophone markets to the maximum extent feasible.

▸ Similarly, the French business buyer, particularly at the end-user level, likes to be sold to by a Frenchman. Arms-length transatlantic dealings by letter and cable do not work well in this market, at least in the beginning. Retailers and industrial customers will normally insist on having a knowledgeable spokesman for the exporter within easy reach in France with whom to discuss both commercial and technical problems. This implies the need for an agent or distributor in France, with parts and service facilities as appropriate to the product and market.

▸ The French Government has a "buy French" or at least a "buy EEC" philosophy; significant government procurement of American goods or services can be expected only if there is no comparable technology available in the EEC or if the American product is available from manufacturing subsidiaries or licensees in the EEC.

▸ There are differences in quality and safety standards between the United States and Europe which sometimes inhibit sales to France, particularly of

GETTING GOODS TO FRANCE—*The accompanying article is aimed at U.S. manufacturers who want to break into a growing market of 53 million in the heart of the EEC. Above, an ore berth and container terminal at Fos, in the Marseilles area.*

electrical equipment and chemical industry materiel.

▶ The market development options in France, as elsewhere in Europe, are more restricted than in the United States. Radio and TV advertising, for example, is highly limited. These limitations, however, apply without significant discrimination to all vendors.

▶ Common Market regulations and French law make the relationship between manufacturer and distributor or agent somewhat different than in the United States. Also, importers often expect more flexible payment terms than are the custom elsewhere. Traders new to the French market should seek advice from their lawyers and bankers on these points.

Further details on the foregoing marketing problems can be obtained from the Department of Commerce and are summarized in the Department's publication *Marketing in France,* available for 50 cents from any District Office or Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Pinpointing most promising product lines with precision and long-term validity is difficult. Movements in exchange rates, technology, economic conditions, competition and taste can change the picture from year to year and even from week to week. Items produced only in the United States, or which can boast a competitive edge in terms of technology, quality and/or price, obviously have the best chance.

But even in the absence of such an edge, the French customer can be influenced by better salesmanship, better and more reliable delivery dates, better terms, better product presentation and better after sales service.

Taking all factors into account, the Department of Commerce and U.S. Embassy in Paris have selected the following lines for promotional emphasis in the fiscal year beginning Oct. 1: business equipment, laboratory instrumentation, metalworking and finishing equipment, energy systems, data communications equipment, industrial assembly equipment and industrial training aids and audio-visual equipment.

U.S. manufacturers in the above lines not already active in France are urged to consult their Department of Commerce District Office without delay on how to take advantage of the special promotional programs to be mounted in France during 1976-77.

The first step for a new-to-market company interested in France is to solicit from the Department of Commerce all available market research on France in your product area. If this is sketchy or outdated, Commerce may be able to supplement it for you. For a more complete job, tailored to your specific needs, you may wish to use the services of a private research agency.

Once you have a general feel for the market, the logical next step would be to make an exploratory visit to France, ideally timed to coincide with a trade show in your field where you would have an opportunity to meet a number of potential distributors and end-users. While in Paris you should call on the U.S. Embassy's Commercial Affairs Branch and U.S. Trade Center to get further information and advice.

When you have decided that one or more of your lines are marketable in France, you should develop a marketing strategy, including decisions on the form of representation you will need, the terms you will offer, and the resources you will invest in support of your agent.

Take advantage of services

With your strategy in hand you are in a position to specify to the Department of Commerce the kind of representation you are looking for, and to take advantage of various services offered by Commerce, in cooperation with the Foreign Service, to bring your products to the attention of appropriate distributors and end-users. These include the supply of computerized trade contact listings, the Agent/Distributor Service, and participation in an exhibition at the U.S. Trade Center in Paris on your product theme. These shows are scientifically promoted and well attended by a selected business audience. No effort is spared to ensure that exhibitors eventually accomplish all the objectives they have set for themselves even if, as occasionally happens, they are not achieved during the period of the show.

The step-by-step approach outlined above can, of course, be rearranged or telescoped to achieve more rapid results. In approaching the French market, however, you can waste a lot of time and money and do considerable harm to your long-term objectives if you short-circuit the system. Having the right product is essential but not enough; you must put that product before the French customer under the terms and conditions that he is accustomed to and through intermediaries in whom he has confidence. The Department of Commerce and Foreign Service are well-equipped and eager to advise you on these terms and conditions and help you find the intermediary.

NORWAY'S OIL WEALTH STIMULATES IMPORTS, COOPERATIVE VENTURES

Norwegians may question the prediction that they will soon be the richest people in the industrialized world, but Norway's rise toward that position already makes it a market deserving serious consideration. Buoyed through the global recession by domestic investment and sustained consumer demand, the country looks forward to even better times as its export markets recover and its North Sea oil and gas earnings grow.

David C. Holton, Commercial Attache at the U.S. Embassy in Oslo, reports that the new wealth is heightening Norway's interest in American products. Sales opportunities range over a broad front from raw materials through capital equipment to consumer goods. Where importing may be uneconomic, production in cooperative ventures—licensing arrangements, joint ventures or partnerships—might be profitable.

Over recent years, the total value of Norway's imports has grown tremendously, and imports from the United States have kept pace. Total 1975 imports, worth about $9.2 billion, were nearly double the 1970 total. The U.S. share, approximately $656 million in 1975, fell slightly from 1974 but nevertheless was almost twice the figure for 1970.

Exploitation of North Sea oil and gas ranks first as the stimulus to Norway's imports from the United States. Its dominance should continue far into the future, although the current over-supply of drilling rigs and the government's go-slow policy are holding growth within bounds.

The government's Petroleum Directorate expects a number of new wells to be drilled in the Norwegian sector of the North Sea this year. Oil companies have been negotiating concessions in several blocks to be opened along the U.K.-Norwegian boundary. Exploration on the continental shelf north of the 62nd parallel, now planned to begin in 1978, is expected to reveal even greater oil fields than those in the south.

American exports mushroomed

American exports mushroomed with the North Sea opening because of the scale of activity and the central role of American companies and American oil field equipment. As Norwegian companies increase their participation in North Sea action with the support of Norwegian Government policies, and as foreign competition increases over time, American companies will find it increasingly difficult to retain their share of North Sea activity.

But the prospects are exciting: the country's largest bank, after calculating that $5 billion was invested in the Norwegian sector of the North Sea in 1963-74, estimates that another $14 billion

NORTH SEA WORK CONTINUES—*American companies still play a central role in exploration and development of Norwegian North Sea oil fields, but competition from Norwegian and third-country companies is increasing, according to this report.*

will be invested over the next five years. This includes $4 billion for drilling and production platforms, $8 billion for field development including pipelaying and terminals, $5 billion for petrochemical plants, and $1.5 billion for supply ships, the drilling of 100 wells, and other services and equipment.

Sweden and Finland, as well as Norway, each see the oil fields expected under Norway's northern waters as a base for industry in the north of all three countries. Prospects for petrochemical installations in north Norway, at least, deserve attention; for the government controls the disposition of offshore oil and favors greater industry in the north. A long-range proposal for a Nordic gas pipeline network also warrants watching, while studies test its feasibility.

Expansion in petrochemicals, electronics

Expansion of Norway's oil refining and establishment of a petrochemical industry have contributed to the increase in Norway's trade with America. The end is not in sight. Production at the state-controlled Mongstad refinery might be doubled to 8 or 10 million tons annually, if Norway and Sweden reach agreement on the sale of oil products to Sweden. An investment intentions survey in November indicated that more than $400 million would be invested in the petrochemical industry—primarily in the Rafnes complex—in 1976.

Electronics, including business and scientific computers and peripheral equipment, electronic components for industry, and production and test equipment for Norway's sophisticated and growing electronics industry, is also an important factor in Norway's imports from the United States. Norway's part in the F-16 co-production program opens a further requirement for electronics components and production equipment. Norwegian industry expects some $3 million in orders in connection with production of the fighter planes under the five-nation program; most of that will be for electronic assemblies.

Further outlays for pollution

Pollution control is high on the list of public and private concerns in Norway, and figures in trade with the United States. After contracting for oil spill clean-up equipment to station at depots along the coast, the government has called for an additional six depots. Municipalities will be in the market for oil spill equipment for their own harbor areas and nearby waters as oil activity grows.

Around $300 million must be spent this year and next for other anti-pollution measures required to meet the government's schedule for stricter environmental standards. By the 1984 deadline, another $400 million will be invested. An industry survey indicates that about 55 percent of the total investment will go directly for anti-pollution equipment; the remainder will be for changes in production methods or even the rebuilding of manufacturing plants. Most severely affected of Norway's industries will be wood processing, where costs will run to 37 percent of annual investment up to 1984.

This year's wage agreements, allowing a 3 percent increase in real disposable income, can work in at least two important ways to stimulate interest in American products. Manufacturers, already concerned over the effect of their high labor costs on competitiveness abroad, will be receptive to proposals for labor-saving machinery. Consumers, enjoying greater disposable incomes than ever, will be attracted to novel and high quality products for the home and family.

The quantity of American goods in Norwegian stores now is not great, but their variety in the face of domestic and European competition suggests that much is possible. Could it be feasible to import fireplace logs from California to sell to Norwegian customers, or drill bits from Ohio to compete with bits from nearby European suppliers? Would Norwegians buy decorative wooden house numbers from America? Work gloves? Skis? All these can be found in Norwegian stores. More must be possible.

Similar "coals to Newcastle" examples can be found in industry. Woodchips, particleboard, and wastepaper are being imported, for instance, and supply vessels from America help service offshore rigs and platforms.

Partnerships are attractive

Partnerships, joint ventures and licensing arrangements offer another approach to the Norwegian market, and beyond, when exporting is not practical.

The French may soon be buying their table wines in cardboard cartons made by the Norwegian licensee of an American packaging company. Gas turbines are made by a leading Norwegian firm under license from an American manufacturer. U.S. companies working with Norwegian organizations have designed drilling rigs and floating facilities to liquefy, store and load natural gas at sea.

Norwegian Government policy may reinforce economic reasons for choosing such partnerships as an alternative to direct sales, since Norwegian companies are urged to use Norwegian products and services whenever practicable.

The U.S. Trade Center for Scandinavia, located in Stockholm, merits consideration as a door to the Norwegian market, for the more enterprising Norwegian agencies send representatives to Trade Center exhibits to find new product lines. Regional representation of American companies by agencies based outside Norway sometimes fails to serve Norway adequately, and is not well regarded by Norwegian customers.

SINGAPORE'S FAST START IN RECOVERY RACE HAS BRIGHTENED MARKET VIEW

Singapore has weathered the worldwide recession in fairly good shape, thanks in large part to its resilient services sector, according to Charles S. Ahlgren, Commercial Officer at the U.S. Embassy there. In 1975 GNP grew by only a little more than 4 percent, but this is proving to be more of a "normal" year, with consolidation in some sectors, more modest growth in others, and a minor boom in the electronics and textile industries. Assuming continuation of economic recovery in the United States, Japan and Europe, Singapore should achieve its 7-10 percent real economic growth target this year.

In 1975, foreign investment commitments in Singapore dipped by over 60 percent to $112 million. Singapore's investment climate, however, remains attractive. U.S. investor interest appears once again to be on the rise, a welcome development to the government, which in 1975 made several new concessions to attract prospective foreign investors. The tax holiday period has been extended from five to a maximum of ten years and favorable consideration of labor-intensive industries has been resumed. Wage differentials between Singapore and other Asian countries are narrowing, although Singapore's strong points remain its well-developed infrastructure, good transportation and communications, and honest government.

For the United States, 1976 is proving to be another excellent trading year with Singapore. U.S. exports to Singapore should total in the neighborhood of $1.3 billion (c.i.f.). U.S. imports from Singapore are expected to show a more substantial (15-25 percent) increase, however, due to increased U.S. demand for Singapore-made consumer items, especially electronic and electrical products, and implementation of the Generalized System of Preferences.

For the longer term (1977 and beyond), U.S. exports to Singapore cannot help but be negatively affected by the slower pace of industrial growth in Singapore and the near shutdown of new oil exploration in the region. It is also douhtful if the electronics and textile sectors alone can sustain Singapore's export growth.

Some areas of particular interest

Selected markets which Ahlgren feels offer good opportunities for U.S. exporters include:

Building and construction supplies and equipment: This is Singapore's single largest category of imports. Potential for U.S. products is somewhat curtailed, however, by their relatively high price. Products with fair potential include: ceramic tiles, gypsum products, builders' hardware, airconditioning equipment, and heavy construction equipment.

Energy and fluid transfer systems: U.S. generator sets and engines, pumps, valves and compressors have done extremely well in the Singapore market in recent years. A cautionary note: the downturn in regional oil exploration could seriously reduce sales opportunities in this market sector.

Communications equipment and systems: One single buyer, the Telecommunication Authority of Singapore (TAS), accounts for over 90 percent of all purchases of communications equipment. The TAS five-year development program calls for expenditures of $440 million by 1981. The largest single category of TAS purchases will be underground telephone cables. Other salable equipment for U.S. manufacturers includes central office exchanges, transmission equipment and teleprinters.

Food processing and packaging equipment: Food processing is Singapore's fourth largest industry. Good sales potential exists for U.S. bottling, filling, labeling, wrapping, capping, sealing and shrink packaging equipment.

Metalworking and finishing equipment: Most salable U.S. products include: arc welders, hydraulic and pneumatic presses, portable pneumatic handheld tools, jig grinding and boring machines, metal cleaning and spraying equipment, twist drills and drill bits, and industrial smelting and refining furnaces. There is also a market for accessories and parts for these items. Foundry machines and parts should also be in demand as existing foundries, many of which are small backyard enterprises, are upgraded and go from jobbing into production work.

Other areas of opportunity for U.S. firms include printing and graphic arts equipment, electronic industry production and test equipment, process control and laboratory instrumentation, business equipment and computers, agricultural products and consumer goods.

Selling in Singapore

Singapore's trade policy is historically very liberal. Tariffs are few, and most capital goods enter duty-free. As a result, the nature of Singapore's historical entrepot trade is gradually changing from such traditional products as rubber and wood to capital goods, such as machinery, telecommunications equipment and industrial raw materials.

Part of this change is due to the increasing insistence of Singapore's neighboring raw material producers, Indonesia and Malaysia, that, to the extent possible, certain value-adding functions be performed in their countries rather than in Singapore. For example, Indonesia is increasingly exporting sawn timber, not logs; Malaysia is increasingly processing and marketing its own rubber.

Singapore is adapting to this situation by promoting its superior financial, port and communications facilities to attract regional distributors, warehouses and sales offices.

Banking, service industries and tourism also contribute to a more diversified, sophisticated economic role. The Singapore-based Asian dollar market now boasts assets of over $14 billion.

Ahlgren stresses that American exporters considering Singapore should not look at just the local market, attractive as it may be in certain product areas. More importantly, Singapore has the marketing connections and the infrastructure to permit its use as a base for penetrating many of the other markets in Southeast Asia.

Information on the market

Although sales opportunities for U.S. exporters exist across the board, some areas are much less promising than others. U.S. business officials are urged, therefore, to do their homework before investing time and money in a trip to Singapore. Any of the 43 U.S. Department of Commerce District Offices will be happy to assist interested business people. They can also write or call Thomas Moore or Lee Barnes, Office of International Marketing, Room 4126, U.S. Department of Commerce, Washington, D.C. 20230.

In addition, the following Overseas Business Reports provide excellent information and advice: *Marketing in Singapore* (OBR 75-8), and *Regional Markets in Southeast Asia* (OBR 75-42). These reports (50 cents a copy) and the following Market Research Studies ($10 a copy) are available from the Department of Commerce's National Technical Information Service, Springfield, Va. 22151: *Building Products & Construction Equipment; Business Equipment & Systems; Communications Equipment & Systems; Computers & Peripheral Equipment; Metalworking & Finishing Tools & Equipment; Sawmill & Woodworking Equipment.*

The U.S. Embassy in Singapore provides a wide range of services to the business community and can elaborate on this report for interested American business persons.

Some 500 U.S. firms are already located in Singapore. While approximately 75 of these are manufacturing locally, the majority are engaged in sales, service, and distribution of U.S. products. Many more U.S. exporters have local agents/distributors for their products. A good local agent is invaluable in this market, and often essential to achieve market penetration. He can arrange for

appropriate financing when required, provide after-sales service parts, and keep his American principal informed of local tender opportunities. The Department of Commerce can assist U.S. firms seeking agency representation in Singapore.

Ahlgren is of the opinion that many U.S. firms are losing out on business opportunities in Southeast Asia because they still consider the market too small and too far away. Singapore businessmen often complain about slow or poor quality responses to their inquiries. This is regrettable: although Singapore is one of the smallest countries in Asia, it is one of the largest importers of U.S. nonagricultural products.

Major projects

The major projects listed below, totaling over $3 billion, have either been announced or are under serious consideration in Singapore. They could provide significant "big ticket" opportunities to U.S. exporters in years to come.

Sumitomo Petrochemical Project: Sumitomo and the Government of Singapore have announced plans to jointly build and own a $600 million naptha cracker. Five or six downstream companies would produce various plastic resins and intermediates. This project is at present somewhat uncertain.

Mass Rapid Transit Project: A feasibility study has been completed, and a Cabinet decision on this project is expected later this year. If the decision is to go ahead, there could be substantial opportunities for U.S. suppliers of rolling stock, other MRT equipment, and construction equipment.

New Singapore International Airport at Changi: Work on this $1 billion project began in early 1976, and will be completed by 1980.

Upcoming Trade Center Events in Singapore include process controls instrumentation exhibition (Dec. 7-10); energy systems exhibition (Feb. 7-11); printing and graphic arts equipment exhibition (April 25-29); electronics industry production and test equipment (June 13-17); and advanced building technology exhibition (Sept. 19-23).

Ecuador Gets Oil To Market, Builds Up Foreign Reserves

After a slump in 1975 caused almost entirely by problems in marketing oil exports, the Ecuadorean economy has rebounded in 1976, reports the U.S. Embassy in Quito.

With oil exports flowing out quite steadily and rewardingly, and with import growth effectively restrained by curbs in force since late 1975, the balance of payments has moved into a healthy surplus condition. Reserves of gold and foreign exchange have been mounting at a far higher rate than the government had expected at the start of 1976. The increase in oil export earnings as compared with last year has also served to reactivate the developmental programs of the numerous public and private entities that have an earmarked share of these oil earnings.

The prospective slight growth in Ecuador's imports this year, or perhaps even a decline from last year's level, will not affect U.S. exports of capital goods, raw materials and construction materials, which are largely exempted from the current import curbs. The pinch is bound to be felt mainly in exports of consumer goods. While overall U.S. exports to Ecuador are being, to some extent, adversely affected by the import curbs, the U.S. share of the market nevertheless is believed to be holding its own and possibly increasing slightly.

Since the curbs will be lifted sooner or later—probably around early 1977, if Ecuador's export earnings continue to prove satisfactory until then—U.S. suppliers will be well advised to continue to keep an eye on the Ecuadorean market. When the curbs are lifted there is bound to be a sharp increase in imports.

Meanwhile, in the face of the curbs and a government credit squeeze on Ecuadorean importers, U.S. exporters will find it necessary and worthwhile to offer relatively generous financing to their Ecuadorean customers. Ecuadorean purchasers are tending to buy from the supplier who offers the best payment terms rather than the supplier who offers the best price.

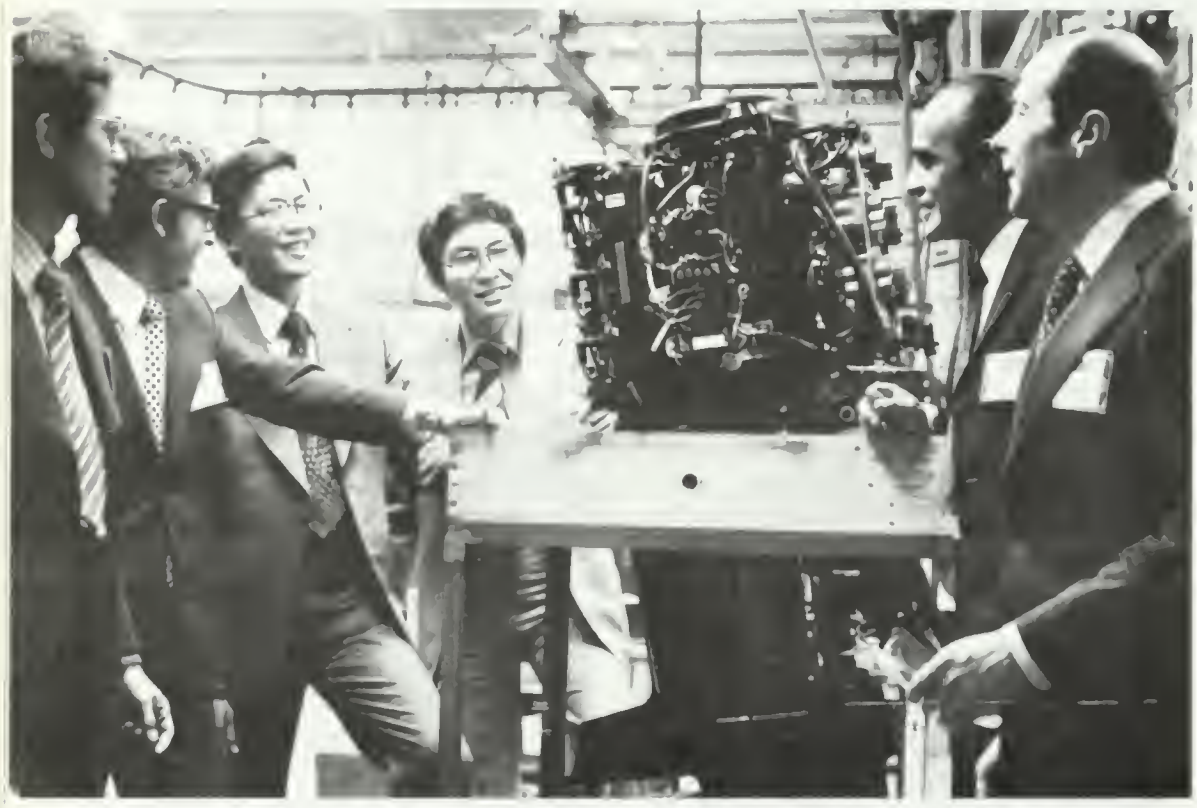
An impressive number of new investment projects, mainly in the public sector, are well along in the planning stage, and the government and other Ecuadorean parties will be requiring huge amounts of foreign private investment for these.

The petrochemicals sector appears to offer perhaps the largest opportunities for investment in the next several years, as the government proceeds with plans for development of a petrochemical complex based on the Andean Pact's assignments to Ecuador in this sector.

The government's attitude towards foreign private investment is favorable. During the past year it has cut some of the red tape involved in the investment process and has sought in other ways to make foreign private investment in Ecuador easier and more worthwhile.

The restrictions imposed under Decision 24 (the Andean Investment Code) of the Andean Pact continue to dampen foreign investors' enthusiasm for projects in Ecuador, but in the current debate on this topic among the Pact members Ecuador has indicated it favors liberalization of Decision 24.

In any case, the government can be expected to afford to foreign investors the maximum possible liberal interpretation of the Decision.



TOURING IN WISCONSIN—*New employees of Mercury Marine's international operations enjoy a close-up view of the 175-hp Merc V-6 outboard at Mercury's main manufacturing facilities in Fond du Lac, Wisconsin. Pictured during part of a three-month orientation program, from left, are Anthony Pang, service manager, Singapore; Manuel Arenas, sales manager, Curacao; Paul Chan, sales manager, Singapore; Francis Wee, dealer development manager, Singapore; Amirali Pirani, sales representative, Nairobi; and Jose Save, service manager, Curacao.*

Burundi Gets Help From High World Coffee Prices

Burundi's real economic growth rate, which had been averaging an estimated 2 to 4 percent from 1970 through 1974, probably slowed to a stop during 1975, or even declined. Paradoxically, the central Africa country's foreign exchange holdings rose from a precarious $13.7 million at the end of 1974 to $27.2 million by the end of 1975, owing to marketing bottlenecks which delayed the receipt of payments for the 1974 coffee harvest until 1975. The U.S. Embassy in Bujumbura expects 1976 to end with Burundi's overall economic position much improved at home and with its foreign reserve position generally satisfactory, even if somewhat reduced from the high level at the end of last year.

The vastly improved foreign exchange position has provided the government with maneuvering room for exercising policy options which otherwise it might not have risked. They have included relaxing import restrictions and a gradual, controlled expansion of money supply. More importantly, however, considering current coffee price levels which are now almost triple Burundi's average 1975 selling price, the government's fixed price to the peasant producer has been increased by 75 percent. Government employees' salaries, which had not been increased for the past 11 years, have been boosted by 30 percent. Further moves to buoy up the economy will be made through increases in the investment budget.

• Aside from America's interest in Burundi's general welfare, which during 1976 includes aid contributions of over $1 million, mostly in PL-480 food, only Burundi's mineral resources, particularly nickel, have attracted serious U.S. attention.

American-led consortium

An American-led international consortium is studying the discovery of large and presumably rich nickel finds by a UNDP mineral survey team, and is presently awaiting the results of a prefeasibility study which may be completed by mid-1977. The results of this study and the then prevailing estimates of the market situation concerning current and future consumption of nickel will provide the consortium with a basis for deciding whether or not to involve itself financially in the development effort. The project would involve metallurgical processing, electric power supply and complete infrastructure development that could cost well over three-quarters of a billion dollars by completion.

American companies so far have shown little interest in other mineral finds, including uranium and rare earths, which have not yet been proven commercially viable.

Aside from these long-term prospects for developing Burundi's mineral deposits, few other interesting opportunities exist for American business. There are possibilities for investing in small or medium-scale projects, which include a $7.8 million sugar production scheme presently in the planning stage, and in occasional World Bank or other international organization projects, on which U.S. firms can bid and which the embassy routinely brings to the attention of potentially interested United States companies.

Generally speaking, however, it would be necessary for any interested U.S. venture to develop a close relationship with officials in order to have a chance of participation in interesting projects and commercial developments in which Belgian, Italian and German interests, already in place, have an edge. Moreover, these nationals and others in European states often have the sole meaningful bidding rights on aid projects sponsored by the EEC or their own governments.

Thus, American commercial activity in Burundi for the immediate future will probably follow the 1975 format, in which sales totaling about $2.5 million (about 6 percent of Burundi's imports) were mainly distributed as follows: wheat flour, $889,000; used clothing, $348,000; and rice (for brewing beer), $222,000.

Local merchants have maintained that all types of American hardware and tools, electrical equipment and pharmaceuticals, for example, are competitive, but that so far American suppliers, only several of whom are represented locally, have shown little interest in pursuing these generally small volume and low value sales opportunities.

In 1975, the United States purchased 48 percent of Burundi's coffee. Common Market countries, led by Germany (which took 27 percent of the crop) bought the rest. These statistics signal continuation of a trend toward broader distribution of Burundi's coffee clientele; in 1967, 1972 and 1973, the United States bought 94, 79 and 62 percent, respectively, of the total crop. Nonetheless, it is probable that the United States, which offers the advantage of buying a large percentage of the crop without meticulous attention to grade, will continue for a long time as Burundi's best coffee customer, and therefore, at the same time, one of its most important trading partners. The U.S. role as a coffee client may become even more important as Burundi, with continuing World Bank help and a smoothing out of paralyzing world coffee price fluctuations, progresses toward its goal of an average annual production of 30,000 tons by 1980.

Sierra Leone Looks Beyond Mining, Wants To Diversify

Mining continues to dominate the economy of Sierra Leone, according to the U.S. Embassy in Freetown. However, because of a recent slump in the west Africa nation's mining industry, awareness is growing that Sierra Leone should develop other sectors of its economy and that agriculture offers great potential.

The government's program of achieving self-sufficiency in rice is progressing, with rice imports showing substantial decreases. Industrial development focuses on the promotion of export-oriented agro-industries that utilize raw materials made in Sierra Leone. Government investment is continuing in the areas of transportation, but persistent government budget and balance of payments problems will result in reduced development expenditures and delays in development projects.

The biggest development in the mining industry during 1975 was liquidation of Sierra Leone Development Corp. Ltd. (DELCO) and closing of its Marampa iron mine. The Marampa mine had contributed approximately 10 percent of Sierra Leone's exports by value, and had employed 2,600. Efforts by the government to interest other parties in taking over operation of the mine have been unsuccessful thus far.

Still the biggest industry

Diamond mining remains the most important industry in Sierra Leone. However, prices have been relatively low in recent months and production is declining as reserves are depleted. The diamond industry also faces the traditional problems of illicit digging and smuggling.

New investment in rutile mining ventures by a German firm, Bayer Preussag, and an American firm jointly owned by Nord Resources and Bethlehem Steel, will contribute to exports and development.

Despite the country's poor economic performance, President Siaka Stevens' All Peoples Congress (APC) remains in control of a basically settled political scene. A recent Cabinet reshuffle was carried through without difficulty.

The resumption of rutile mining by an American firm will increase the importance of economic ties with the United States. If potential U.S. investments in iron ore mining materialize, exports to the United States will be further increased.

U.S. imports of diamonds and agricultural products probably will remain at about present levels for the next few years. Sales of U.S. wheat are likely to continue at present levels while sales of rice will decline from past figures

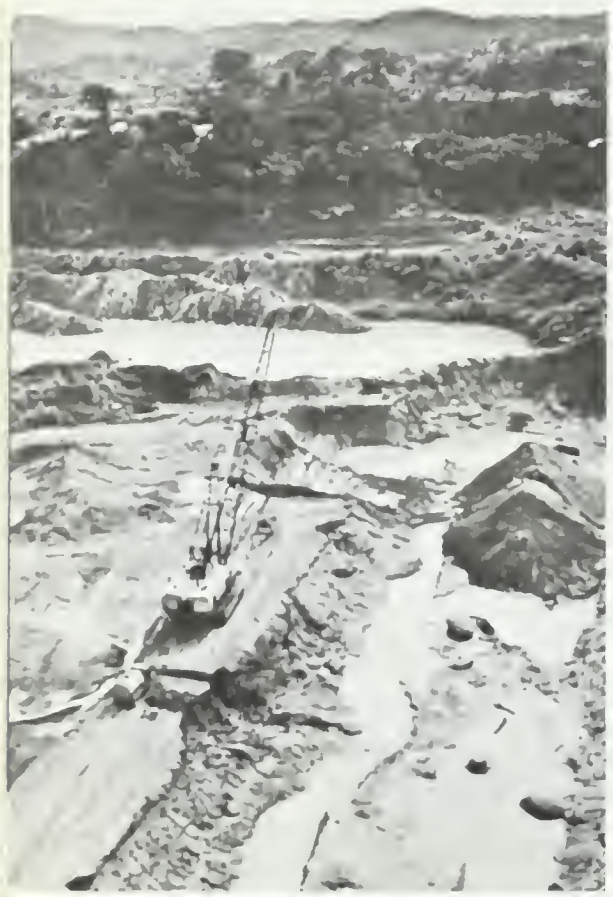
as Sierra Leone approaches self-sufficiency in rice production.

Sales opportunities for American products in Sierra Leone are limited. The government probably will restrict imports for at least the next two years as part of its efforts to correct the balance of payments deficit. Opportunities for major sales of electric generating, transport and communication equipment to the government exist, but are constrained by the tight budget and difficulty of securing financing through international channels. Sierra Leone will be interested in buying U.S. products and technology which will lead to decreased imports or increased exports.

U.S. investment in Sierra Leone can be expected to grow over the next five years. U.S. firms are active in mining investments and opportunities for investments in small manufactures, fishing and food processing exist and deserve cultivation. Sierra Leone's Five-Year National Development Plan clearly recognizes the need for foreign capital and technology.

Incentive for investors

As a beneficiary developing country under the U.S. Trade Act of 1974, Sierra Leone enjoys duty-free access to the U.S. market for many products. Similarly, as a party to the Lome Convention, Sierra Leone's exports qualify for special access to the European Common Market. Freer access to these markets may provide another incentive for investors interested in exportable products. At the same time, progress of the Mano River Union, especially in the areas of customs harmonization, joint planning on industrialization, and improved transportation links, will enhance the outlook for investments designed to serve the regional market. Investors, however, will have to assess each proposed project carefully in light of Sierra Leone's present financial and balance of payments problems.



SIERRA LEONE SITE—*A dragline at work at a National Diamond Mining field at Yengema. Diamond mining is Sierra Leone's most important industry.*

Mali Has Some Opportunities For U.S. Exporters, Investors

The rate of growth of the Malian economy has been rather modest for more than a decade, due to limited and irregular growth in agricultural production and a relatively slow expansion of industrial activities, reports the U.S. Embassy in Bamako.

A return to more normal weather conditions in the second half of 1974 permitted a sizable recovery in agricultural production in 1975, and real GDP of the west Africa nation showed a growth rate of approximately 25 percent. While the secondary and tertiary sectors continued to grow at about the same rate as in the previous year, the strongest growth impetus emanated from the primary sector, especially from agriculture—as a result of the return to normal rainfall conditions.

The government's financial situation, which has shown a regularly increasing overall deficit in recent years, deteriorated even further in 1975. The overall deficit rose by 36 percent, mainly due to acceleration in the growth of current expenditures and to rising wages. The financial position of Mali is weak.

The investment climate for U.S. business remains favorable in Mali. "Ordinance 26 of May 23, 1969," the basic Government of Mali Code of Investments, offers certain incentives, mostly in the form of tax-free privileges for 5 to 10 years, to companies prepared to invest in several areas of interest to the government, e.g., food handling and processing industries, veterinary products, metallurgical industries, energy production, construction and tourism. Although Mali has abided by its investment code, manufacturers have been and will probably continue to be required to offer the government a percentage ownership (10-50 percent).

No problem should develop concerning the use of foreign technical and managerial personnel as long as their numbers are limited and well defined in the initial agreement. This agreement is all-important to the new investor in Mali and should cover all possible contingencies since changing the agreements is difficult after they have been approved by the government.

The agreement should undoubtedly specify the wages and salaries of employees as well as selling prices of the company's products. These will remain subject to government regulations.

Mali does not prohibit the importation of goods from any specific country; however, inter-government agreements make products from the Common Market area more profitable than those from other countries at present unless one has tax-free privileges.

There are formidable hurdles to overcome for any U.S. company which decides to invest in Mali: the company will be required to deal almost exclusively in French; there is a dearth of qualified Malian personnel in management and technical fields; Mali's infrastructure is not well developed; and finally, service facilities and personnel to keep equipment "on-line" are very limited. Along with those factors, it should be pointed out that the pace of doing business in Mali is slower than in the United States. The possibility of a small market is another important factor to consider.

The two largest U.S. direct investments in Mali at present are Texaco, with $1.1 million in current marketing; and Mobil Oil, with roughly $1 million in marketing activity.

The most promising areas of investment can be found in agro-industry, meat processing, transportation of meat products and possibly vegetable processing. These fields present opportunities for American technology to be quickly and effectively utilized. At the same time, investment would have to be channeled in a direction that the government favors.

Mexico's Petroleum Company Lists Equipment Purchases

Pemex, Mexico's state petroleum company, has estimated its purchases during the 1977-1982 period at $6.2 billion to be spent domestically and $3.1 billion abroad. Refinery production is to be doubled to 1.778 million barrels per day and petrochemicals increased to 18.7 million from 4.5 million bpd.

A copy of the list of planned acquisitions by category is available from Mexico/Central America/OIM, Room 4031, U.S. Department of Commerce, Washington, D.C. 20230.

Change In Algerian Workweek

Algeria has instituted an Islamic workweek. Offices of ministries and state corporations are now open Saturday through Wednesday. The American Embassy in Algiers has followed suit, and will be closed Thursdays and Fridays.

Calendar For World Traders

Oct. 12—New York—World Trade Club meeting. George R. Holloway, Vice-President, Johnson & Higgins, will discuss Current Trends in FCIA/Eximbank Programs.

Oct. 13—Jamesburg, N.J.—State Chamber of Commerce seminar on Trade with Japan. Art Miyakawa of Commerce's Office of International Marketing will speak.

Oct. 13—Erie—International Trade Executive Club meeting on International Economics. Stanley Katz, Deputy Assistant Secretary of Commerce for International Economic Policy and Research, will speak.

Oct. 13—Chicago—Doing Business in Israel seminar, Hyatt Regency. Sponsors: American-Israel Chamber of Commerce/Midwest, Commerce District Office. Gayle Reichhardt of the Commerce Action Group for the Near East will speak. For information: 312-641-2937.

Oct. 13—New York—Course on International Business Financing begins, Pace University School of Continuing Education. Co-sponsored by Commerce District Office. For information: 212-285-3355.

Oct. 13-14—New York—Seminar on Brazil: Reassessing the "Miracle," World Trade Institute.

Oct. 14—New York—Overseas Automotive Club luncheon meeting, Summit Hotel. Government of Malaysia Investment Mission to the U.S. will attend.

Oct. 15-16—Washington, D.C.—Middle East Institute's 30th Annual Conference, in conjunction with Johns Hopkins University School of Advanced International Studies, Mayflower Hotel.

Oct. 18-19—New York—Seminar on Risk Management of Foreign Investments and Operations. Sponsors: Wharton School of University of Pennsylvania, Foreign Policy Research Institute. For information: 212-953-7262.

Oct. 18-21—New York—Separate World Trade Institute seminars on Export Development; Export Documentation and Traffic; International Licensing, Franchising and Distributorship Agreements; and The Financial Officer's Job in the International Company.

Oct. 19—Portland, Ore.—FCIB International Forest Products Credit Group luncheon meeting, Sheraton Inn Airport.

Oct. 20—Boston—Eximbank seminar presented by officials of Eximbank & FCIA, Hyatt Regency Hotel. Sponsor: International Business Center of New England. For information: 617-542-0426.

Oct. 20—New York—Seminar on The Role of the Freight Forwarder, International Executives Assn.

Oct. 20-21—Columbus, O.—Chamber of Commerce conference on New Horizons in International Trade. J. Mishell George of Commerce's Bureau of East-West Trade, will discuss Future Trade Opportunities.

Chicago Hosts Export Talks

An Export Matchmakers Conference, pairing small manufacturers with highly qualified export specialists, will be held Oct. 30-Nov. 1 at the McCormick Inn in Chicago. This event, featured by exhibits and seminars, is being sponsored by the Overseas Sales and Marketing Assn. of America and Commerce Chicago District Office, in cooperation with District Export Councils, State of Illinois, Chicago Assn. of Commerce and Industry, and International Trade Club of Chicago.

Oct. 20-22—Ann Arbor—Seminar on Licensing: A Profitable Way to Reach Foreign Markets. Presented by University of Michigan, 313-763-1387.

Oct. 21—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Summit Hotel.

Oct. 21—San Francisco—Seminar on Marketing Prospects and Techniques in Venezuela, Holiday Inn (Union Square). Thomas Brewer of Commerce's Office of International Marketing will speak. For information contact Pan-American Society of San Francisco.

Oct. 21—Syracuse—Export Matchmaking Conference, pairing small manufacturers with highly qualified export specialists. Sponsor: New York Commerce District Office. For information: Robert Krause, 212-264-0628.

Oct. 21 — Chattanooga — World Trade Council meeting, Read House.

Oct. 25-29—Chicago—Seminar on How to Export From the United States, American Management Associations. Commerce speaker: Robert D. Foglesong, Assistant Director of Emergent Markets in the Bureau of International Commerce.

Oct. 26—Fargo, N.D.—Governor's Trade Conference, Town House Motor Inn. Sponsors: State of North Dakota, Upper Great Plains Transportation Institute, Commerce Omaha District Office. For information: 402-221-3664.

Oct. 27—Boston—International Business Center of New England seminar on Export Documentation & Traffic, Part II, Hilton Inn, Logan International Airport. For information: 617-542-0426.

Oct. 27—Seattle—Business Seminar: Economic Problems and Opportunities in the Middle East, First National Bank Auditorium. Speaker: Stephen E. Palmer, Jr. of State Department's Bureau of Near Eastern & South Asian Affairs. For information, Seattle Commerce District Office.

Oct. 27-29—Brussels—Ninth East-West Trade Conference. Sponsors: Management Centre Europe, European Headquarters of AMA.

Oct. 28—Sioux Falls, S.D.—Governor's International Trade Conference, Westward Ho Country Club. Sponsors: State of South Dakota, Greater South Dakota Assn., Commerce Omaha District Office. For information: 402-221-3664.

INTERNATIONAL BUSINESS REPORTS

Port of Baltimore Directory. 1976. 9th edition. 116pp. Limited copies available upon request.

Prepared by the Maryland Port Administration as a service to port users and other maritime interests. Designed to provide information about port services and personnel of business firms, public agencies and other organizations which make up the maritime community of Baltimore. A divided index has been added which lists organizations and personnel in alphabetical order.

Write: Port Promotion Dept., Maryland Port Administration, 19 S. Charles St., Baltimore, Md. 21201.

Survey of Oils. 1976. 34th annual edition. 192 pp. $13.50.

Recent price developments for Canadian crude oil and natural gas are focusing renewed attention on Canada's increasingly important petroleum industry. Value of production, spurred by higher prices, rose 28 percent to a record $6.3 billion in 1975. Increased prices in effect since the start of this year—with additional hikes in effect since July 1—mean still more revenue for the producers. The status of this industry—and its outlook—are reviewed in this survey.

Write: The Financial Post, 481 University Ave., Toronto, Ont. M5W 1A7.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

Pulp, Paper and Converting Machinery and Equipment Trade Mission to Brazil. Dec. 1-10. The Brazilian pulp and paper industry has grown rapidly over the last ten years in order to satisfy an exploding domestic demand. Production doubled in the 1967-1973 period alone. Foreign investors have begun showing interest in Brazil as a source of pulp and paper for the world market over the medium and long-term. To date, exports have not been significant, and imports have grown substantially. However, ambitious plans have been announced to make Brazil both self-sufficient in paper and a major exporter of pulp (two million tons) by 1980. William J. Bushwaller, 202-377-4511.

U.S. Exhibition in Second Dakar International Fair. Dec. 3-12. In 1974 this exposition attracted 500,000 visitors with 670 firms from 44 countries participating. Senegalese development expenditures of over $500 million a year, rising interest in U.S. sources of supply, an improved U.S. competitive position due to the recent ending of EEC reverse preferences, and extensive regional sales prospects, provide enterprising American firms an excellent opportunity for market penetration and development. Philip Michelini. 202-377-5148.

Catalog Exhibitions on Do-It-Yourself Equipment and Products. Brussels, Dec. 4-12, and Utrecht, Jan. 24-30. These shows will be organized by the U.S. Department of Commerce at two major European exhibitions, "Hobby 76" at the Rogier Center in Brussels and "Karwei 77" at the Royal Netherlands Industries Fairgrounds in Utrecht. The growing cost of services related to home rehabilitation, limited expansion of new construction, inflation and tight money are encouraging growth in the do-it-yourself field in both Belgium and the Netherlands. These trends also have made U.S. products more price competitive in Europe and have created an excellent marketing opportunity for those manufacturers selling do-it-yourself equipment or products. Call 202-377-3973.

Hospital and Medical Equipment and Supplies Catalog Exhibit. Port of Spain, Trinidad and Santo Domingo, Dominican Republic. Dec. 6-10. Both countries are embarking on and updating programs in the field of health care. Trinidad, entirely dependent on foreign suppliers for its hospital and medical equipment and supplies, has obtained sizable loans from the World Bank and the Inter-American Development Bank to implement its programs. The Dominican Republic is attempting to expand its health care, into the rural areas, while fortifying existing facilities and building new ones in its cities. Both countries place increasing emphasis on the purchase of medical and surgical equipment, hospital equipment and disposables. Call 202-377-3973.

Industrial Process Controls Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Dec. 6-10. The Singapore Government's plans for a major petrochemical complex and new construction in the electrical energy sector are expected to push sales of process control instrumentation to $12.5 million by 1978. Singapore's requirements for these products are met entirely by imports. To participate contact J. Lee Barnes. 202-377-3893.

ECOLOGY '77—Environmental Purification and Pollution Control Instrumentation and Equipment. U.S. Trade Center for Scandinavia, Stockholm. Dec. 6-10. Sweden, Norway, Denmark and Finland, currently and individually warring against pollution, have programmed an aggregate total of $2 billion plus to be spent on environmental protection by 1984. A significant portion of this amount will be earmarked for the purchase of instrumentation, equipment and controls. Louis Quay, 202-377-3089.

Offshore International Exhibition. Birmingham, England. Dec. 7-10. The continuing development of North Sea oil resources offers good opportunities for U.S. suppliers of oil and gas field exploration, production and transmission equipment, instruments, systems, supplies and services. U.S. exports of oilfield equipment and pipe to countries active in the North Sea oilfields are substantial and growing. U.S. exports to the United Kingdom alone in 1975 totaled $32 million, up from $19 million in 1974 and $11 million in 1973. Five new North Sea fields are expected to open by the end of this year. A $3 billion market for products and services is expected in 1976, with the total rising to $5 billion by 1980. Official exhibits will be mounted by many countries. George A. Kemp, 202-377-3713.

Advanced Business Equipment and Systems Exhibition and Seminar. Taipei. Dec. 13-17. This JEEP (Joint Export Establishment Promotion — for new-to-market participants only) will focus on a rapidly growing market in the Republic of China. The economy in Taiwan has recovered strongly from the recent world recession. Imports of U.S.-produced business equipment and systems are expected to reach $17.5 million by 1979—up from $11.2 million in 1974. Peter Wilson, 202-377-4227.

Building Products and Construction Equipment Catalog Exhibit. Philippines, Thailand and Malaysia. January. All three countries are initiating aggressive building programs and expect to import most or all of the building products and construction equipment required. Pre-engineered and modular construction are either established techniques or are gaining wide acceptance in all three markets. Reinforced concrete, wood-frame, hollow building block, and structural steel are the common building techniques. Aluminum and wood are used for window and door frames. Call 202-377-3973.

Water Resources Specialized Trade Mission. Iraq, Saudi Arabia, United Arab Emirates. January. Iraq may be spending $5-$9 billion on water resource development, including six major dams and numerous municipal water system projects. In Saudi Arabia, a governmental review of six water resource surveys has generated new ideas to meet water requirements. According to the American Embassy in Jidda, the timing of this mission is ideal. Projects under consideration will run into the billions of dollars. Upcoming projects in the UAE include desalination stations, reservoirs, pumping stations, and new sewer plants. The U.S. Bureau of Reclamation soon will undertake a hydrological survey of the UAE, with future projects expected to result. Wanda Ale, 202-377-4756.

Building and Construction Specialized Trade Mission. Iran and Israel. January. Growth in Iran's building and construction sector has averaged nearly 40 percent annually over the past three years. According to that country's current five-year-plan, some $6 billion is targeted to housing construction. Other major projects include port development, power plants, hospitals, refineries and factories. Major construction projects in Israel include entire new towns, an industrial complex, shipping and recreation centers, and various plants and factories. Call Bill Bushwaller, 202-377-4511.

Pet Products Exhibit (JEEP). Paris. Jan. 10-13. By 1985, France is expected to be the largest market in all of Europe for pet foods and accessories. Its 51 million residents currently care for some 7.5 million dogs, 7.5 million cats and the contents of 2 million bird cages and 1 million aquariums. One family in two has at least one pet. Because of the market's growth rate, good opportunities exist for American firms to introduce new products. Some 6-8 new-to-market firms will be eligible for this event. Ned Krause. 202-377-5381.

Data Communications Equipment Exhibi-

tion. U.S. Trade Center, London. Jan. 10-14. The U.K. data communications market, presently estimated at $150 million, is expected to reach $175 million by 1980. Imports account for over 90 percent of domestic consumption of this equipment, with the U.S. share above half. Items to be emphasized are computer peripheral controllers and interface devices, combination I/O devices and processors, input equipment, output devices, and parts and accessories of data communications systems. Anita F. Brownstein, 202-377-4443.

Electronics Production and Test Equipment and Electronic Components Catalog Exhibit. New Delhi and Bombay. Jan. 10-20. India is currently making a determined effort to accelerate the overall development of its electronics production capability. The U.S. currently holds 75-80 percent of the total Indian import market for production and test equipment, and in 1974 the U.S. accounted for 46.5 percent of Indian imports of electronic components. Both markets should be expanding greatly. Call 202-377-3973.

Timber Industries Equipment Catalog Exhibit. Madagascar, Zaire and Central African Republic. Jan. 13-25. These countries manufacture little of the equipment necessary for these industries. Although there is immediate sales potential only in the C.A.R., Madagascar has taken a World Bank loan for a major pulp mill project within the next five years, and Zaire is in need of retooling and expanding its timber industries in the near future. C.A.R. and Madagascar have eliminated tariffs against the U.S., and this, combined with devaluation of the U.S. dollar, has made U.S. timber industries equipment much more price competitive. Call 202-377-3973.

Port Development Technical Sales Seminar. Algeria, Tunisia, Qatar. Jan. 15-24. Oil and gas-rich Algeria is giving high priority to continued expansion of its ports to facilitate massive import needs and better control its export of hydrocarbon products. Extensive interest exists in containerization. Tunisia's main port of Tunis-La Goulette needs improved cargo handling and transportation facilities, and increased use of roll-on/roll-off vessels will necessitate changes in equipment and infrastructure at all of its ports. Prospects in Qatar are best for supplies of port and harbor equipment and port management services, as it considers recommendations for expansion of present ports and possible construction of a new port. Call E. Lee Carteron, 202-377-2973.

Microwave Technology and Test Instruments—Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. Jan. 19-21. With the French Government's recently announced plan to expend $30 billion during the next 5 years to modernize the national telephone system and with the recognized technical superiority of U.S.-made microwave products and test equipment, France promises to be a prime export market for U.S. manufacturers. Featured will be components, circuits, test and measurement instruments, equipment and systems, and antennae. Contact George Ruffner, 202-377-5381.

Motor Vehicle Maintenance Equipment, Replacement Parts and Supplies Exhibition. U.S. Trade Center, Mexico City. Jan. 25-28. The Mexican motor vehicle census has increased from 800,000 passenger cars, trucks and buses in 1960 to 3.2 million in 1974. Mexican purchase of motor vehicle replacement parts, service equipment and automotive chemicals was $194 million in 1974 and is expected to more than double by 1980. Mary R. Wiening, 202-377-4463.

Business Equipment and Systems Exhibition. U.S. Trade Centers, Paris, Jan. 31-Feb. 3; London, Feb. 8-11. These events will provide exceptional sales opportunities for American manufacturers. Past experience has shown that they attract executives influential in the purchase of equipment. The U.S. Trade Centers in Paris and London provide an effective and economical means of reaching buyers or setting up distribution. Exhibitor's contribution fee is $900 for companies new-to-market and $2,000 for those already established. Dwight L. Umstead, 202-377-4414 or 2177.

Avionics and Ground Support Equipment Technical Sales Seminar. Greece, Italy and Yugoslavia. Feb. 1-10. Seminar sessions will be conducted in Athens, Rome and Belgrade. "State of the art" presentations emphasizing the latest technological achievements in specific areas of avionics and ground support equipment will be given. Product categories to be included encompass communications such as traffic controls and flight instrumentation such as navigational aids commonly found in aircraft. Also, terminal support equipment and products used to test and service aircraft and aircraft engines as well as baggage and cargo handling systems. Airport and aircraft requirements are expanding rapidly as efforts are made to modernize and improve air transportation systems in these countries. W. Bradley Tyrrell, 202-377-5285.

Medical Equipment Technical Sales Seminar. Czechoslovakia, Hungary, Poland. Feb. 1-15. Officials of these three countries have expressed deep interest in purchasing American medical equipment to improve their health care systems. This seminar will provide a proven, effective method to develop markets in Eastern Europe. Gary Roberson, 202-377-3376.

Hi-Fi Equipment Exhibition. U.S. Trade Center, Milan. Feb. 4-7. A special opportunity to show and sell the latest in hi-fi equipment is being offered to a limited number of American manufacturers. The U.S. Trade Center staff in Milan will launch an exceptional promotional campaign aimed at the widest possible trade and consumer audience exposure. AM-FM stereo equipment, amplifiers, speakers, synthesizers, electric guitars, tuners, microphones, headphones and complete amplifier systems are some of the items that will make up the exhibition. Call Mike Springmann, 202-377-2762.

Poultry Equipment Mini-Exhibit/Seminar. U.S. Commercial Office, Moscow. Feb. 7-10. The USSR's 1976-80 Five-Year Plan calls for a 100 percent increase in poultry production to be achieved by more mechanization and introduction of progressive techniques. New mechanized poultry farms and factories are planned and existing poultry farms are to be rebuilt using new machinery and technology that must be imported. Call Richard Bell, 202-377-5163.

Maritime USA '77—Port and Shipbuilding Exhibition. Kaohsiung. Feb. 7-11. The market for maritime, port and shipbuilding equipment in the Republic of China is growing at a rapid pace. Imports are estimated to reach $317 million by 1979. U.S. manufacturers are expected to supply one-third of this market, which consists of both government and private enterprises. Dave Horridge, 202-377-2798 or 5545.

Electric Energy Systems Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Feb. 7-11. U.S. firms supplying this equipment have excellent markets in Singapore, Malaysia and Indonesia in both private and public sectors. Imports by Singapore alone totaled $172 million last year with strong growth expected. This exhibition, featuring generation, transmission and distribution, and instrumentation equipment, provides direct access to all three markets. Space is limited. Call Helen Burroughs, 202-377-2051.

International Houseware Fair. Cologne. Feb. 12-14. Products to be exhibited at the American Pavilion include: domestic machines and appliances, kitchen utensils, household and cleaning aids, incidental furniture and wicker articles, cutlery and flatware, fine metalwares and tableware articles, gift items, and arts and crafts. Germany's 62 million people live in 23.7 million households and spent $3.6 billion in 1975 on housewares. The market is expected to increase 3.5-5 percent annually during the next 3 years. Scheduled to coordinate with the International Hardware Fair, which in 1977 is expected to attract more than the 20,000 trade visitors from 64 countries recorded in 1976. Don Schmadel, 202-377-2177.

Printing and Graphic Arts Exhibition, U.S. Trade Center, Tokyo. Feb. 14-18. Carefully researched projections of the Japanese market for printing and graphic arts equipment indicate a growth from $290 million to $335 million over the next three years. In 1979 total imports will approximate $83 million with the U.S. share exceeding $25 million. Imported equipment will include typemaking and typesetting machinery, presses, bookbinding machinery, and photographic equipment for the graphics industry. Purchasers will be interested in both new investment and replacement equipment. During the recession period of 1974-1975 imports of printing and graphic arts equipment registered a 20 percent decline; however U.S. exports in this product category for the same period increased nearly 20 percent, demonstrating growing demand. Cantwell Walsh, 202-377-4056.

Printing & Graphic Arts Equipment Product Literature Display. Johannesburg and Cape Town. Feb. 14-25. Trade sources indicate that for 1976-1980 a general growth rate of between 10 and 12 percent can be expected for printing and graphic arts equipment in South Africa. South Africa must import all of its printing and graphic arts equipment except for less sophisticated equipment such as sink units and washing equipment. Despite their appreciation for the quality and sophistication of American-made equipment in this field, a major share of the market goes to other suppliers. The primary reason is the lack of exposure of U.S. equipment in South Africa against the extensive promotion efforts conducted by U.S. competitors. This product literature display is important to offset these trends. Call 202-377-3973.

Agricultural Machinery & Equipment Exhibition. Guadalajara. Feb. 16-20. Mexican agricultural machinery and equipment imports are expected to exceed $110 million this year and are projected to increase by 25 percent annually for the next three to four years. Guadalajara is

the second largest city in Mexico and one of its major agricultural centers. Call C. M. Cummings, 202-377-4463.

Pro-In '77, International Design Engineering Conference and Exhibition. Duesseldorf. Feb. 18-21. This exhibition, the second of its kind in Germany, will feature components, materials and technologies. It is international in scope and is structured to reach a broad market. Included are: materials, shapes and forms, mechanical and power transmission components, fluid power-hydraulic and pneumatic, electric and electronic power and control and joining systems and components. Don Schmadel, 202-377-2177.

Communications Equipment. U.S. Trade Center, Tehran. Feb. 27-March 3. The government is in the process of establishing a modern national communications system, and plans to expand communications facilities by 1000 percent during the next ten years. Iranian imports of communications equipment amounted to $185 million in 1972 and are projected to increase to $400 million by 1980. The majority of this equipment will be imported, since Iranian manufacturing capability in the field is limited. Karl Reiner, 202-377-2952.

Equipment and Textiles for Sewn Products Exhibition. U.S. Trade Center, Milan. March 8-11. Italian imports of equipment and textiles exceed $53 million. The U.S. Government is offering American manufacturers of such equipment an outstanding opportunity to substantially increase the U.S. market share. Italian customers for equipment and textiles for sewn products are presently in a position where they must innovate and modernize facilities, and require the latest equipment and highest quality textiles. Marcia Griffin, 202-377-4509.

Motor Vehicle Maintenance Equipment, Replacement Parts, and Supplies Catalog Exhibit. Nigeria, Zaire and Zambia. March 9-22. As a result of Nigeria's oil revenues the government has devised a five-year $50 billion development plan to cover all sectors of the economy and raise the national standard of living. A substantial part of the plan will be devoted to maintaining and expanding infrastructure ($7 billion for highway construction alone). Nigeria is still wholly dependent on imports to satisfy motor vehicle maintenance equipment needs. Couple the Nigerian demand for imports with the surge in motor vehicle assembly plants and there will be strong demand for maintenance equipment and parts for the foreseeable future. Zambia is a landlocked country and thus has to rely heavily on land transport systems to move copper to foreign ports. Zaire has been actively seeking direct foreign investment to enable it to grow. Foreign aid has been directed towards the agricultural and transportation sectors. 202-377-3973.

Industrial Instrumentation. Leipzig Spring Fair, German Democratic Republic. March 13-20. The second U.S.-sponsored exhibition at Leipzig will feature industrial instrumentation primarily applicable to the machine tool and processing machinery construction industry, the chemical industry, and the electrical engineering industry. Emphasis on these sectors is based on a realignment of economic policy goals calling for reinforcement of the raw materials base, an increase in and improvement of consumer goods to the public, and a production increase in the export sector. Buyers and trade officials from throughout Eastern Europe and the Soviet Union see this as their opportunity to inspect western goods and make purchasing decisions. Closing date: Oct. 31. Richard Bell, 202-377-5163.

Building Products and Systems, Construction Equipment and Architectural Hardware Exhibition. U.S. Trade Center, Tokyo. March 14-18. In 1974 the Japanese market for these products was $34 billion. The forecast for 1980 is $54 billion. New construction there is strongly influenced by western style and ideas. Private and public construction in 1974 was 2 million units valued at $67.9 billion. The 1980 projection calls for 3.1 million units at $110.1 billion. The Japanese seek advanced design interior and exterior building products of quality, and knowledge of building systems and methods that U.S. manufacturers can supply. Robert Levine, 202-377-4056.

Commercial and Industrial Security Equipment Exhibition. London Trade Center, March 14-18, and Milan Trade Center, March 22-26. Strong and growing demand for this equipment has been identified by recent market research. The combined market for Italy and the United Kingdom amounts to about $350 million, of which about one third represents imported equipment. Products having high sales potential include intrusion alarm devices, security cameras, closed circuit television systems, access control equipment, fire detection alarms, automotive checking systems, anti-shop lifting devices, "bomb sniffers" and many others. Contact Sam Spaulding, 202-377-4508.

Tokyo Anti-Pollution Exhibition, TAPEX '77 Trade Fair, Harumi Pier, Tokyo. March 14-18. Japan's remarkable economic and industrial growth has spawned the worst aspects of high-paced industrial development with all forms of accompanying pollution: air, water, solid waste and noise. Demand for pollution control instrumentation alone will be $390 million by 1980 reflecting an annual growth rate of 15 percent. By the end of 1976, the Ministry of International Trade and Industry estimates, the market for all pollution corrective equipment will top $3.27 billion. Pollution technology offers opportunities for advanced U.S.-designed corrective equipment and instrumentation. Mara Yachnin, 202-377-5751.

Hotel and Restaurant Equipment/Franchising U.S.A. Stockholm. March 14-18. Promotion is aimed at Sweden, Norway, Denmark and Finland. In Sweden purchases of hotel/restaurant/institutional feeding equipment totaled $45 million in 1975—half by the public sector, 10 percent by employees' cafeterias and the remainder by hotels and restaurants in the private sector. These sales are expected to increase 9 percent annually over the next several years. The concept of franchising has been in the testing phase in Sweden but now appears to be entering the take-off stage. Jim Price, 202-377-2797.

Pumps, Valves and Compressors Catalog Exhibit. Bombay and New Delhi. March 14-24. India's five-year plan calls for an $18 billion industrial development program ($11.1 billion to public sector, $6.9 billion to private/cooperative sector) to maximize current output and create new capacity in certain target industries, including fertilizer/chemical, petroleum exploration and refining, petrochemicals, electric/nuclear power and industrial process equipment. India imported $35 million worth of PVCs during the fiscal year ending March 31. The U.S. share of this market has consistently run at about 33 percent. India's imports of PVCs are projected to total $143 million through March 31, 1979. 202-377-3973.

Computer Equipment Trade Mission to Belgium, Netherlands and Luxembourg. March 14-25. Will focus on computer applications for business efficiency and will promote such equipment as minicomputers, on-line point of sale systems, stock control and distribution systems, input devices for electronic computers such as optical character recognition (OCR), high speed printers, programmable terminals with local mass storage, and bank and financial terminals. Will also include computer programming and other software services. The U.S. share of computer imports into the Benelux countries is currently 84 percent for minicomputers, 23 percent for small, medium and large computers, and 23 percent for peripheral equipment. Bobette K. Orr, 202-377-4941.

Exhibit and Technical Seminar on U.S. Water Pollution Monitoring and Analysis Instrumentation and Systems. March 21-25. U.S. Commercial Office in Moscow. The purpose of this exhibit/seminar is to explore trade opportunities for U.S. water pollution equipment through discussion with a highly selected group of Soviet foreign trade officials, scientists, technicians and end-users. Each participating U.S. firm will be responsible for mounting a small exhibit and presenting a technical paper. Limited to seven companies. Judith Robinson, 202-377-3376.

Metalworking Machinery and Equipment (METALQUIPOS '77). Caracas. March 21-26. A 50 percent annual growth is expected over next three years in U.S. sales of metalworking machinery to Venezuela as that oil-rich country begins to invest $13 billion in metal-producing, automotive, tractor, ship repair, and home appliance industries. Exhibitors will receive full range of marketing services, including booth design and construction, VIP receptions, extensive market promotion campaign. Steve Hall, 202-377-4832.

Agricultural and Food Processing Equipment. Budapest. April 15-20. Hungary relies on exports of agricultural products and processed foods to earn hard currency. AGROMAS EXPO is an opportunity to meet Hungarian buyers and end-users at a specialized commercial exhibition. Mike Frisby, 202-377-5186.

Hydraulic, Pneumatic and Advanced Fluid Power Systems, Equipment and Components Exhibition. U.S. Trade Center, Tokyo. April 18-22. A seminar will be included. The Japanese recognize superiority of U.S. production. In 1975 the market for both hydraulic and pneumatic power systems was $519.7 million. The market in Japan for hydraulic power systems will grow 10 percent annually for some time, while annual growth for pneumatic power systems will be somewhat less. Robert Levine, 202-377-4056.

Automotive Maintenance and Servicing Equipment Exhibition. U.S. Trade Center, Taipei. April 18-22. The market for this equipment in the Republic of China is expected to increase by 50 percent to about $12.7 million by the end of 1977, with the U.S. supplying approximately one-fourth. Rapid industrialization with concomitant expansion of the highway network have led the government and private sectors to a growing awareness

of the need for greatly improved safety and maintenance techniques. Charles D. Jones, Jr., 202-377-5545.

Plastics Production Machinery and Equipment Exhibition. U.S. Trade Center, Mexico City. April 18-23. Mexico's plastics industry is expected to register especially rapid growth over the next few years. Consumption of plastics production machinery has been increasing at almost 15 percent annually, to $35.2 million in 1976. Some 85 percent must be supplied by imports, and the U.S. is the major supplier. In a February 1975 exhibition of this equipment, sales results were $1.5 million off-the-floor and almost $11 million projected. A technical seminar will be included. Mary R. Wiening, 202-377-4463.

Scientific and Industrial Laboratory Instruments Exhibition. U.S. Trade Center, Paris. April 19-22. In 1975, the French market for laboratory instruments amounted to $154 million. Most was supplied by imports, of which the United States accounted for 30 percent. Imports from the U.S. are expected to continue providing about one-third of total imports of a market which in 1980 should be about $240 million. Market research shows a good market for chromatographs, mass spectrometers, oscilloscopes, N.M.R. spectrometers and automatic analyzers. Ned Krause, 202-377-5381.

Business U.S.A.—A Business Equipment Exhibition. Hong Kong. April 25-29. Automation of office procedures and a large demand for modern business equipment in Hong Kong will result in yearly market growth of 32 percent between 1976 and 1979. Imports are projected to reach $54 million by 1979, double the level of 1974. A full range of electronic office machines, copying/duplicating equipment, microfilm equipment, electronic banking machines, letter handling/addressing/mailing machines, paper/check/coin-currency handling machines, and dictation equipment is required for all phases of the business community. Joseph Burke, 202-377-5285.

Industrial Process Controls and Instrumentation Exhibit. Caracas. April 25-30. Venezuela, buoyed by oil income, is attempting to establish a modern industrial economy in the shortest possible time. Industrial process controls will be playing a major part in this development. By 1978 at least 90 percent of process control requirements will still be filled by imports and U.S. manufacturers are expected to hold a 64 percent share of the $32 million market; this is equal to a 16 percent annual growth rate over the $15 million imported in 1975. Hans J. Amrhein, 202-377-2332.

Food Processing & Packaging (FPP) and Agricultural Machinery & Equipment (AGME). Novi Sad, Yugoslavia. May 13-22. Yugoslav imports of AGME and FPP are forecast at $95 million and $55 million, respectively, for 1977. Government officials have recently designated self-sufficiency and increased export potential in these industries as a top national priority. The Novi Sad fair is prestigious, attracting exhibitors and buyers from 45 nations, including Eastern Europe and China. A full range of processing, forming, filling, sealing, wrapping and packaging equipment is required in FPP; opportunities for sales of AGME include all varieties of planters, spreaders, dryers, loaders, and large combines, planters and harvesters. Contact Kenneth Nichols, 202-377-2762.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

HONG KONG—Seeks joint venture to manufacture **citizen band radios** for use in U.S. market. U.S. participants to provide technology and supplies of components. U.S. partner's participating capital is negotiable. Established 1954. Wing's Industrial Works, G.P.O. Box 2322. Cable, WINGSINDUS; telex, 85177 CHEN HX. P-76811.

1500 — AFGHANISTAN — Government seeks joint venture with experienced U.S. firm to establish **new construction company.** Organization would be responsible for carrying out all construction projects envisaged under Afghanistan seven-year plan. U.S. participant is offered up to 49 percent equity in new venture. Contact: President, Internal Trade Department, Ministry of Commerce, Kabul. P-76814. OPIC.

2711, 2721—UNITED KINGDOM—Firm seeks association with American publishers in **private newsletter field.** Topics of specific interest include politics, economics and finance. Firm wants to publish newsletters in U.K. on behalf of U.S. firms and would also like American firm to publish its material in U.S. Established 1939, has contacts worldwide. Allen L. Keyte, Director, Intelligence International Ltd., 17 Rodney Road, Cheltenham, Gloucestershire GL50 1JQ, England. P-76774.

3069, 3842—UNITED KINGDOM—Manufacturer of **inflatable life jackets and life rafts, protective clothing, flying coveralls, immersion suits and pressurized clothing,** seeks licenses to produce complementary products. Established 1952, company has 750 employees and is part of Allied Polymer Group, Ltd. R. Wharton, Dir., Beaufort Air-Sea Equipment Ltd., Beaufort Road, Birkenhead, Merseyside, England. P-76781.

3251, 3252, 3259—TURKEY — Seeks to establish tile factory for manufacture of **marble/resin floor and wall tiles.** Desires technical know-how and equipment. Desired end product is smooth finished tile, cut to size according to requirement, composed of marble chips, dust and polyester or epoxy resin as filler material. Established 1953. Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76810. OPIC.

3275—ECUADOR—Seeks joint venture to manufacture **prefabricated wallboard** of asbestos, synthetic fiber or fibercoated cardboard. U.S. participant would contribute capital, machinery and technology. Ecuadorean firm is interested in producing panels that average 8 ft. in length and contain space for laying air conditioning ducts, electrical wiring or water piping. Estimated annual consumption of domestic market, three million lineal feet. Firm is a major distributor of building and construction materials. Mrs. Joyce de Ginatta, Gen. Mgr., Mercantil Importadora Sucesores A. Ginatta C.A., P.O. Box 5124, Guayaquil. WTDR. P-76775. OPIC.

3296 — MEXICO — Manufacturer of refrigeration and air conditioning equipment for commercial and industrial use, seeks licensing agreements for production of **fiberglass products (reinforced plastic) for air conditioning housings and automotive applications.** Sr. Francisco J. Pietrini, Frigotherm-Macquay, Avenida Progreso 222, Tlalneplantla. Telephone, 905-565-7622; telex, 017-73944. P-76776.

3443—UNITED KINGDOM — Manufacturer of structural steelwork, pressure vessels, storage tanks and general fabrications, is seeking licenses for U.K. manufacture of **air coolers, pressure vessels and general fabrictions for oil-related industries.** Company employs 85. W. G. Elliot, Elbar Engineering Ltd., Moycroft, Elgin, Morayshire, Scotland. P-76777.

3462, 3714—UNITED KINGDOM—Manufacturer of steel components pressings and welded assemblies, and brake assemblies for automobile industry, is interested in producing under license **pressing components and assemblies for automotive and allied industries.** Firm established 1946, employs 150; current annual sales volume, $2 million. R. L. Davies, Dir., Associated Steels & Tools Co. Ltd., Union Mill Street, Horseley Fields, Wolverhampton WV1 3DP, England. P-76778.

3523—VENEZUELA—Large importer of agricultural and industrial equipment wants to represent **U.S. producer of irrigation equipment.** Seeks agreement with well established American company manufacturing broad range of irrigation equipment and systems, including mobile units such as wheeled self propelled and center-pivot types. Eric Nathan, Maquinarias Mendoza, Aptdo. 332, Avenida Sucre 363, Catia, Caracas. WTDR. P-76808. OPIC.

3524—FRANCE—Small manufacturer of equipment used by municipalities, such as bulletin boards, filing cabinets, wagons and trailers, park and garden equipment, wishes to produce under license **special**

carts, **wagons, small refuse trailers.** M. Marcel Reboul, Serrurerie Industrielle Vauclusienne (SIV), Zone Industrielle, 84100 Orange. P-76779.

3534—AUSTRALIA — Seeks license or joint venture to manufacture products in area of **hydraulic lifts**, other precision machined **hydraulic components.** Also interested in producing any products requiring precision machining. E. Davie, Gen. Mgr., ROC Hydraulics, 100 Silverwater Rd., North Lidcombe, N.S.W. 2141. P-76807.

3537, 3715—GERMANY — Manufacturer, distributor and exporter of transportation and construction equipment seeks licenses for manufacture of **trucks, trailers, and construction machinery, including special purpose vehicles, e.g. truck-mounted cranes, garbage trucks, and refrigerated trucks.** Firm presently exports approximately 70 percent of its production to Africa and Near and Middle East. Employs 70 workers, 4 sales agents. Horst Gassmann, Mng. Partner, ALGA Nutzfahrzeuge u. Baumaschinen GmbH, Heidornweg 1, Postfach 1164, 2139 Sittensen. P-76780.

3551—UNITED KINGDOM — Manufacturing licenses are desired for production of **food processing machinery,** such as filling machines and any other special purpose machinery. Company produces rock drilling machines, equipment for food processing plants, and is steel fabricator. Has 56 employees. A. Sprilyan, Mng. Dir., Williamson Engineering Ltd., Elliot Industrial Estate, Arbroath DD11 2ND, Scotland. P-76782.

3559—JAPAN — Leading manufacturer of water treatment and ion exchange equipment seeks licenses. Is looking for advanced technology for **solvent recovery systems, deodorizing systems and related disposal equipment.** Firm is particularly interested in obtaining technology for solvent recovery systems of activated carbon or other methods as well as incineration and catalytic combustion processes for disposal of recovered solvents. Recovery systems would be used in handling solvents such as toluene and acetone given off from printing, resin manufacturing and synthetic rubber manufacturing plants. Deodorizing system is for gases which give off offensive odors. Company employs 950, has licensing and trade arrangements with several major U.S. firms. Yoshihiko Aosaka, President's Office, Japan Organo Co., Ltd., 28-23, Hongo 1-chome, Bunkyo-ku, Tokyo 113. P-76809.

3559 — UNITED KINGDOM — Seeks licensing and/or representation agreement to manufacture-sell equipment in **water purification and effluent disposal sector.** Established in 1852, firm makes equipment for sewage and effluent treatment plants for industrial finishing, ceramic manufacturing, chemical and process industries. Has 350 employees, markets on worldwide basis; annual sales, £3.7 million. L. C. Hothersall, Mktng. Mgr., William Boulton Ltd., Navigation Road, Burslem, Stoke-on-Trent, Staffs ST6 3BQ, England. P-76783.

3559 — UNITED KINGDOM — Seeks licensing and/or agency agreements with U.S. companies to **manufacture/install municipal sewage plants, biological effluent treatment processes, flotation, clarification and other separation processes and major proprietary water treatment equipment.** Firm operates as engineer, fabricator and specialist in process plant building and manufactures water treatment systems, heat exchangers and process plant equipment. It has 130 employees, annual sales of £6.8 million and is subsidiary of Guest Keen & Nettlefolds Ltd. which has yearly sales of £819 million. P. J. Harris, Mng. Dir., GKN Birwelco Ltd., Mucklow House, Mucklow Hill, Halesowen, West Midlands B62 8DG, England. P-76784.

3559 — UNITED KINGDOM — Seeking licenses to manufacture and sell in U.K. and Europe **technically advanced equipment with applications in plastics field.** Especially interested in machinery for making plastic bags and containers of all types, such as **injection molders, blow molders and thermoforming machines.** Firm manufactures paper bag machines, web fed envelope machines, flexographic printing machines, paper converting machinery, ultra-violet drying equipment. Established 1933, employs 300; annual sales, £2.5 million. A. E. Shield, Mng. Dir., Beasley French & Co., Ltd., 20 Hartcliffe Way, Bedminster BS3 5RL, England. P-76785.

3561—NEW ZEALAND—Seeks licenses to manufacture **solar water pumps.** Officials at New Zealand Dept. of Scientific & Industrial Research have proposed that pump with following specifications could have good potential for New Zealand market: **Duty** — continuous running, pumping fresh water up to 90° C.; **drive**—electrical, 230V 50 Hz; **discharge pressure**—one to three meters of water (1.5 to 4.5 p.s.i.); **flow rate**—60 to 120 liters/hr. (15 to 30 gal./hr.); **noise level**—suitable for domestic situation day and night (probably 40 db maximum at motor); **suction lift**—none required; **internal pressure**—withstand 7½ meters of water 11 (p.s.i.); and **general**—price around US$30 in country of origin (in batches of several hundred). Minimum 10 year design life with no maintenance. Maximum input 30 watts, or as low as possible. J. S. Baty, Physics and Engineering Laboratory, Dept. of Scientific and Industrial Research, Private Bag, Lower Hutt, Wellington. P-76786.

3564—BRAZIL — Well known manufacturer of blowers and fans seeks U.S. technology to manufacture **two specific types of centrifugal ventilators** having following specifications: (1) Capacity, 21,180 c.f.m.; static pressure, 35½ in. H_2O; maximum r.p.m., 1750; sea level, 10 m.; inlet air temp., 30° C. Capacity may fall to 2118 c.f.m., but static pressure should not vary more than 10 percent. (2) Capacity, 18,835 c.f.m.; static pressure, 35½ in. H_2O; maximum r.p.m., 1750; sea level, 920 m.; inlet air temp., 30 C. Capacity may fall to 1884 c.f.m. but static pressure may not vary more than 10 percent. Eng. Joao Amorim de Souza Filho, Industrias Zauli-Rio Branco S.A., Caixa Postal 3302, Rua Salta Salta 192, 01135 Sao Paulo (SP). WTDR. P-76787. OPIC.

3567—FRANCE — Manufacturer of **industrial chimneys and pollution control equipment** seeks cross licensing agreement. Interested in producing industrial chimneys in France and licensing production of its equipment in U.S. Employs 48; annual sales, $1.1 million. Jean-Pierre Perdrizet, Gen. Mgr., Union Thermique S.A., 62, rue de la Republique, 93100 Montreuil. Telephone, 808-0166; telex, UNITERM 211 512. P-76788.

3569, 3811—INDIA—Seeks collaboration with U.S. companies capable of providing technical know-how and equipment for manufacture of **packaging machinery, chemical laboratory equipment and precision instruments.** Firm desires to produce following items: measuring instruments; cast iron products for metalworking industries, e.g., cast iron surface plates, v-blocks, slip gages or thrift blocks; packaging machinery for pharmaceutical industry, e.g., blister packing, capsule filling, ampoule filling, tube filling and tableting machinery; chemical laboratory equipment such as centrifuge, constant temperature bath. Firm owns a medium-sized iron and steel foundry which produces cast iron products for export to U.S. Established 1962. Write: Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76812. OPIC.

3569—JAPAN—A leading manufacturer of water and sewage treatment equipment seeks advanced **technology for recycling industrial wastes consisting chiefly of plastics.** Firm produces equipment for water, waste water and refuse treatment. It has sales offices in major Japanese cities, employs over 1,200. Presently has licensing agreements with several foreign firms. Kikuo Nasu, Dep. Mgr., Sales Headquarters, Ebara-Infilco Co., Ltd., Palaceside Bldg., 1-1, Hitotsubashi 1-chome, Chiyoda-ku, Tokyo 100. P-76789.

3573 — UNITED KINGDOM — Seeks licenses to manufacture **10-30 CPS printers, floppy disk units, low cost data entry devices and mini-computer systems.** Firm produces fast printer terminals and is distributor of minicomputer systems and peripherals. Ian Donaldson, Dacoll Group, 52 Templemere, Weybridge, Surrey KT13 9PB, England. P-76790.

3600—UNITED KINGDOM — Manufacturer of **cable holding devices and systems, cable identification products, insulation materials, electronic accessories, heat shrinkable products, cross linking processes, wiring systems and safety equipment,** seeks licensing arrangements for production of items similar to its current range. Established 1949. D. A. Bloor, Sales & Mktng. Dir., Hellermann Electric Div., Bowthorpe Hellermann Ltd., Gatwick Road, Crawley, West Sussex RH10 2RZ, England. P-76791.

3613 — UNITED KINGDOM — Seeks licensing agreements for manufacture of any product within fields of **low, medium and high voltage switchgear, and solid state control equipment.** Firm is manufacturer and importer of low voltage electrical control gear, electronic control equipment and high voltage electrical switchgear. Established 1947, employs 600; current annual sales volume, $2 million. Peter D. Burridge, Export Mktng. Mgr., M.T.E. Ltd., Progress Road, Leigh-on-Sea, Essex SS9 5LS, England. P-76805.

3613, 3679 — UNITED KINGDOM — Manufacturer of precious and base metal components seeks licensing agreements for production of **electrical contacts for relays and switchgear.** Established 1961, employs 100; annual sales, $2.2 million. Peter R. Bushell, Mng. Dir., P. & B. Metal Components Ltd., Tyler Way, Colewood Road, Whitstable, Kent CT5 2RR, England. P-76792.

3621—UNITED KINGDOM — Seeks to manufacture under license **small, low inertia d.c. motors and tachos.** Company makes synchros-resolvers, a.c. motors and stepping motors. Reports annual sales of $2.6 million, employs 200. D. R. Hunt, Mng. Dir., Moore Reed & Co., Ltd., Wal-

worth Industrial Estate, Andover, Hampshire, England. P-76793.

3634—UNITED KINGDOM — Designer, manufacturer of electrical heaters and elements for industrial and consumer application seeks license to produce **new forms of electric heating elements.** Firm specializes in development of heaters for synthetic fiber industry, including process of heated transfer used in yarn industry for fiber texturizing. Would be interested in licensing this technology to U.S. company working in heat transfer. British firm has 300 employees; exports to Europe; is member of major industrial group. A. B. Dandy, Mktng. Dir., Heating Elements Ltd., Moat St., Wigston Magna, Leicester LE8 2GF, England. P76794.

3643—UNITED KINGDOM — Manufacturer/exporter of connectors, valve holders and marine safety equipment, seeks licensing agreements for production of **connector type products, e.g. DIL sockets and switches. Established 1937, employs** 600; current annual sales volume, $8 million. G. Mendez, Export Sales Adm., McMurdo Instrument Co., Ltd., Rodney Road, Portsmouth, Hants. PO4 8SG, England. P-76795.

3651 — UNITED KINGDOM — Seeks licensing agreements for manufacture of **audio accessories, i.e., cleaners, kits.** Firm is distributor/exporter of audio accessories, hi-fi products and pre-recorded cassettes. Current annual sales volume, $4 million. D. N. Mason, Mktng. Dir., Metrosound Audio Products Ltd., Audio Works, Cartersfield Road, Waltham Abbey, Essex EN9 1JF, England. P-76796. WTDR.

3713—UNITED KINGDOM—Small manufacturer of **cargo containers, vehicle bodies, refrigerated vehicles and glass-fiber-polyurethane sandwich panels,** seeks license to produce similar equipment. Established 1970, employs 20. S. H. G. W. Anderson, Mng. Dir., Body Engineering Ltd., Industrial Estate, Bridge of Don, Aberdeen AB2 8EZ, Scotland. P-76797.

3714 — UNITED KINGDOM — Large manufacturer / distributor / exporter of automotive seat belts, inertia reels, child safety equipment, motorcycle spares, is interested in manufacturing under license for distribution throughout U.K. and Europe products in **automotive safety equipment field and other automotive components and accessories.** Firm's current annual sales volume is £96 million. Russell Barker, Int'l Sales & Marketing Dir., B.S.G. Int'l Ltd., c/o Wingard Ltd., Kingsham Rd., Chichester, Sussex PO19 2UG, England. P-76798.

3820—GERMANY—Seeks licensing agreements for manufacture of **process control instruments,** e.g., warning indicators for methane gas, noise level indicators, pressure recorder, ozonometer, oxygen analyzers, ultra-violet radiation recorders and similar instruments for commercial and home use. Firm is a leading manufacturer of shooting ranges and bowling alleys. Gerhard Lorch, Ernst K. Spieth KG, Fritz Mueller-Str. 145, D-7300, Esslingen. P-76806.

3825—UNITED KINGDOM—Seeks licensing agreements for manufacture of high quality performance **test instruments.** Firm presently operates as manufacturer/agent of calibration equipment and as agent for electrical/electronic test instruments including d.c. and true RMS a.c. digital voltmeters and data logging equipment. R. S. Smith, Dir., Alcor (Engineer) Ltd., Penmark House, Woodbridge Meadows, Guildford, Surrey, England. P-76799.

3841, 3842—UNITED KINGDOM—Manufacturer and exporter of **water baths, incubators, ovens, sterilizers, drying cabinets, bio-hazard cabinets, autoclaves, heater boxes, magnetic stirrers and special thermal equipment,** seeks licensing agreements for similar items. Firm also seeks to manufacture **hospital supplies including chart trollies, drug cupboards and poison cupboards.** Established in 1969, employs 93; current annual sales volume, $1.3 million. G. G. Robertson, Mng. Dir., Laboratory Thermal Equipment, Greenbridge Lane, Greenfield, Oldham, Lancs. OL3 7EN, England. P-76800.

3999—UNITED KINGDOM—Producer of **planchettes** for use in manufacture of security papers, e.g. travelers checks, seeks licensing arrangement for manufacture of similar items. D. W. Spinks, Mng. Dir., D. W. Spinks & Co., Ltd., 406 Roding Lane South, Woodford Green, Essex 1G8 NEY, England. P-76801.

5000, 7000—ISRAEL — Largest commercial and entertainment center in country known as **Dizengoff Center** is under construction and expected to be completed by June 1978. Center, in heart of Tel Aviv, will comprise 250 business offices, show rooms and exclusive stores. Underground parking lot for about 1,000 cars is included in center which will be open for business 24 hours a day. Management of center is seeking licenses, franchises and/or joint venture agreements in fast food stores, restaurants and entertainment clubs. Interested U.S. firms should contact Eli Wagner, Sales Dept., Dizengoff Center Ltd., 50 Dizengoff St., Tel Aviv. P-76802. OPIC.

5812—ECUADOR—Reputable British gas filling station chain seeks U.S. **know-how and equipment to set up chain of drive-in restaurants.** Firm desires franchise arrangement. Raul F. Alvarado, Mgr., ECUALUBE—Ecuatoriana de Lubricantes S.A., P.O. Box 7037, Guayaquil. P76803. OPIC.

7399—UNITED KINGDOM — Seeks to share space and business overhead costs with U.S. firm wishing to establish U.K. base for procurement, inspection, consolidation of supply for North Sea and European Continental Shelf projects or for U.K.-based exports to Middle East. Firm is engineering company experienced in chemical plant, pumping, fabrication and pipework. Has full procurement administration, and telex services, plus manufacturing space if required. K. J. Harding, Dir., Vanroy Ltd., Harvey Works, Lingard St., Burslem, Stoke-on-Trent ST6 1EE, England. P-76804.

Benin Creates Monopoly For Meat, Poultry Imports

Benin's Societe de Developpement des Resources Animales (SODERA), a parastatal organization which came into being by Presidential Decree on June 28, will be charged with marketing, import, and export of livestock, meat, and meat products, and administration of the provincial, district, and communal livestock farms created during the recent national production campaign.

SODERA will function as a coordinating monopoly for the import of all meat and poultry products into Benin.

Private businesses will have to clear their import orders with SODERA which will take a commission. It will handle all internal marketing, acting as the intermediary between producers and sales outlets including local markets. Management is in the process of formulating plans to set up SODERA's own commercial contacts overseas, in an effort to obtain meat and poultry products at cheaper prices.

SODERA will need to purchase agricultural equipment, livestock feeds, or vehicles as it develops. The organization will also participate in livestock development projects. U.S. suppliers of livestock equipment or meat and poultry products may wish to contact: M. le Directeur General Pierre Tomagnimena, Societe de Developpement des Resources Animales B.P. 2041, Cotonou, Republique Populaire du Benin. Correspondence in French is desirable. P-76773. OPIC.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-5361), referring to file number.

SWITZERLAND—Well known manufacturer of holding and positioning devices for use on machine tools offers for licensing its line of new **wedge bar chucks.** Offered items claim to represent genuine technological progress with respect to accuracy, performance, safe operation and wide range of applications. So-called bar chucks are manufactured to modular concept which allows easy replacement of used parts. Operation is purely mechanical, moving parts being moved by means of mechanical power transfer. Firm, established in 1700s, continues to have an excellent reputation. File 3156

TAIWAN — Inventor and U.S. patent holder of **high building escape installations** wants to sell the patents of his product in U.S. File 3157

UNITED KINGDOM—British firm seeks U.S. manufacturer interested in producing under license its products which include **flame-explosion proof xenon beacons** for use on emergency vehicles, burglar alarm systems, aircraft at airports and navigational use, military search lights, nylon toggle latches, nylon flag clips, beacons for police cars. Products are exported worldwide. File 3158

AUSTRIA—Manufacturer of doors and gates seeks U.S. licensee for its products which include **one-piece overhead door for private garages; folding doors operated manually, electrically or pneumatically; folding doors for fire stations; hospital doors with special features.** File 3159

FRANCE—Large construction firm in France is looking for U.S. firm interested in manufacturing under joint venture agreement **concrete structures** for many types of construction. File 3160

FRANCE—Firm of good commercial reputation is interested in manufacturing its product under license. Product is novel **system of filing drawers in a cabinet** under which papers and documents

are filed horizontally. A special opening device gives access to all documents when the drawer is opened. Drawers are easily removed from the filing cabinet to the working areas and readily restored in place. File 3161

GERMANY—Firm wishes to offer for production in U.S. under license: **antivibration supports** for the isolation of sensitive machines from ground vibration and noise; **rubber metal bars, buffers, roof elements, machine footings, damping plates, and U-bearings.** File 3162

GERMANY — Well managed company wants to offer for production under license in U.S. its **rechargeable flashlight.** It is a small flashlight available in several models including one that can be recharged using cigarette lighter in car. Heavy duty types and underwater types are also offered. File 3163

FRANCE—Old established firm seeks arrangement with U.S. firm for manufacture and sale in U.S. of its **ampule washing, sterilizing machines.** File 3164

NEW ZEALAND—Well established firm seeks licensing arrangement for manufacture in U.S. of a line of specialized **garden blades** as attachments for use on four-wheel tractors. Also seeks licensing arrangements to manufacture other garden blades in New Zealand. File 3165

SWITZERLAND — Well reputed firm offers its line of **automatic guideway grinding machines,** for licensing in U.S. These machines were developed to automate manufacture of large, high precision items such as lathe beds and other heavy machine tool parts which previously required complicated operations. Machine is produced in various sizes, according to customer needs. File 3166

SWITZERLAND — Leading firm seeks and offers licenses and technology exchange with U.S. firms covering line of **equipment for nuclear industry,** a field in which that firm has pioneered use of aluminum. Line includes nuclear chambers and target stations, radio frequency accelerating chambers of cyclotrons, reactor vessels and shielding devices, heavy water storage tanks and related cryogenic equipment. File 3167

UNITED KINGDOM—Large manufacturer of soap, toiletries, baby products, semi-ethicals and medicated confectionery, seeks U.S. firm with whom they can work out mutually interesting licensing and manufacturing arrangement to service both countries. File 3168

Colombia Seeks Capital For Minerals Development

Two new companies have been established in Colombia with Arab and Colombian capital to undertake several large projects including exploration, exploitation, beneficiation and exportation of coal and various minerals in Colombia and other Latin American countries.

The project includes construction and start up of a refinery in Egypt for treatment of concentrated minerals imported from South America. Current estimates call for an investment of up to $350 million with much of the technology and equipment coming from the United States. Officials will consider any type of offer from interested parties including investment. Turnkey proposals are preferred. Contact: Khalil Choucair Fegali, President, Minera El Sol, Soc. Ord. De Minas, Carrera 7 No. 12-70 Oficina 706, Bogota. P-76813. OPIC.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Heavy construction

• **16200 — MALAWI** — Blantyre Water Board invites firms to bid for Phase IV Extensions, Contract No. 1—Civil Works, involving construction of extensions to water treatment plants, pumping stations, reservoirs and pipelines at the Board's installations at Walker's Ferry and Blantyre, and construction of new facilities between these locations. Financed by United Kingdom and Commonwealth/Malawi grant and loan funds. Firms interested in tendering should reply to consulting engineers: Sir Alexander Gibb & Partners, Early House, 427 London Rd., Earley, Reading RG6 IBL, England. Sir Alexander Gibb & Partners (Africa), Delamere House, Victoria Ave., P.O. Box 1196, Blantyre, Malawi. Sir Alexander Gibb & Partners (Africa), Shell/BP House, Harambee Ave., P.O. Box 30020, Nairobi. Application for documents must be accompanied by payment of K100 ($110) and details of previous experience in work of comparable nature. Upon receipt of bona fide tender by due date or return of all documents, K100 ($110) payment will be refunded. Bid deadline Nov. 25.

• **16200—PANAMA**—Proposals for design, manufacture, supply, delivery, transport and/or erection of 115 kV Transmission Lines Divisa—Llano Sanchez & Aguadulce—230 kV Fortuna Line will be received until Nov. 30 by Purchasing Dept., Instituto de Recursos Hidraulicos y Electrificacion (IRHE), Poli Bldg., Justo Arosemena Ave. & 27 East St., Panama City. IRHE has received IBRD loan in various currencies equivalent to $30 million towards foreign cost of electrification programs. These foreign costs will be eligible for disbursements from loan in currency of contractor. All proposals must be made according to laws of Panama and guidelines for procurement for World Bank Loans, as detailed in bid documents. Bid documents as well as all maps, plans, specifications and proposal forms may be inspected at IRHE Offices in Panama, or at Panamanian Embassies in U.S., France, Italy, U.K., Brazil, Germany, Spain and Japan. Complete set of documents may only be obtained directly from offices of IRHE in Panama or by mail from P.O. Box 5285, Panama 5, for non-refundable payment of $25 U.S. per set. Refer to Invitation to Bid No. 530-76.

Paper mills

• **26210—IRAN**—State Printing Office invites bids for providing annual supply (up to 618 metric tons) of various watermarked philigrande paper and 500 rolls of gummed watermarked and philigrande paper. Ungummed paper to have fluorescent fibers and be provided in 3 sheet sizes and 3 different basis weights. Gummed philigrande to be provided in width of 35 cm and basis weight of 70 gram/mz (w/o gum). Copy of tender with more detailed specifications and conditions of sale available from Construction and Forest Products Division, BDC, Room 2120, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3534. Bid deadline Nov. 16.

Agricultural chemicals

• **28790—INDIA**—Supply of 400 tons of Endosulfan, technical, 92 percent minimum active ingredient on delivery. Tender No. CPM: 2/E/G. Bid deadline Nov. 1. A. R. Menon, Commercial Manager, Hindustan Insecticides Ltd., Udyogamandal P.O. 683501, Kerala State. Quotations to be f.o.b. and c.&f. Cochin Port, separately quoted. Delivery 100 tons about April 1, 1977, balance in 100 ton lots before Dec. 31, 1977. Tender documents available from U.S. Department of Commerce, BDC/OBRA, Room 2106, Washington, D.C. 20230; 202-377-3420.

Steel mill products

• **33100, 36100, 36400—BOLIVIA**—Steel

cable, line ware and conductors for 52 kilometers construction. Tender No. 19-15 PE-1975; bid deadline Nov. 16. Empresa Nacional de Electricidad S.A., Casilla 565, Cochabamba. Specifications available from above address at $37.50.

• **33100—IRAN**—Various sizes and quantities of high pressure seamless black steel pipe. Tender No. 731/104; bid deadline Nov. 6. Iranian State Railways, Tehran. Tender documents available from Iron & Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2438.

• **33100—KOREA**—34 tons carbon steel pipe. Tender No. KFX-76254-PIII; bid deadline Nov. 4. Office of Supply, Government of Republic of Korea, Seoul. Specifications available from Iron & Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2438.

• **33100—MEXICO**—75,000 tons railroad rails. Tender No. BIRF 1; bid deadline Nov. 9. Subgerencia de Adquisiciones, Ferrocarriles Nacionales de Mexico, Avenue Central No. 140, 4 Piso Ala "A," Mexico 3, D.F. Specifications available from above address at 500 pesos (about $25.38). Financed by World Bank.

Rolling, drawing & extruding of nonferrous metals

• **33500—ETHIOPIA** — 2,500 kms self-supporting drop wire, 3,000 pcs. outdoor terminal boxes and 500 kms jumper wire. Tender No. 20/76, bid deadline Nov. 22. Telecommunications Service of Ethiopia, P.O. Box 1047, Addis Ababa. Tender documents available from Copper, Lead & Zinc Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2438.

Special industrial machinery

3559585—HONDURAS — Complete machinery & equip. for tanning industry & leather working, incl.: brushing machine; flashing machine; setting-up machine; unhairing machine; cutting and splitting machines; colloid mill and homogenizers; centrifugal atomizing humidification system. Buyer wants to receive offers with complete catalogs and price lists, c.i.f. Puerto Cortes, against L/C, or better terms of payment. Buyer operates one of largest meat packing plants in Honduras and wants to expand business to include tanning plant. Local banking circles report excellent reputation for this firm. Total sale may amount to U.S. $150,000. European offers are competitive. Reply to—Jose Andonie Fernandez, Pres., CORSA (Empacadora Cortes, S.A.), Km. 8 Carretera A Cortes, San Pedro Sula. Cable CORSA; tel. 522984.

General industrial machinery

• **35600—EL SALVADOR**—Design, fabrication, installation and testing of pumps and auxiliary equipment for 9 pumping stations in Anda's North Zone Project to supply water to metropolitan San Salvador's Northern area. Contract will also include supply and installation of auxiliary operating and control equipment such as motors, starters, transformers, small pumps for drainage, maintenance cranes and telemetric equipment for control of entire system. Tender No. IN9/76, bid deadline Nov. 12. Proyecto Zona Norte, Administracion Nacional De Acueductos y Alcanterillados (ANDA), Boulevard Del Hipodromo No. 609, Colonia San Benito, Sal Salvador. Documents and plans can be examined in offices of North Zone Project at above address. Tender documents including information, contract conditions, specifications and plans (in Spanish) available for 250 colones, equal to $100, to interested bidders or representatives at above address. Does not mail to U.S. or other countries.

3569998 — INDONESIA — Cremating equip. Dir. of firm has contact with several businesses requiring such equip. WTDR under preparation. Estab. 1974, currently engaged as agent for welding wire alloy & metal coating machine. Sells throughout Indonesia. Has 20 employees incl. 2 salesmen. Authorized capital reported 10 million rupiah (US$1 equals RP .415). Annual turnover 400 million rupiah. Payment to be funded by L/C. Requests catalogs, c.i.f. Jakarta price quotations for above. Interested firms should contact by cable ASAP. Reply to—T. Doddy Jusuf, Dir., P. T. Super Delta Jaya, Jalan Toko Tiga No. 51, Jakarta Barat. Cable Ptlimasatu Jakarta; tel. 21276, 26282.

Household appliances

3639961—JAPAN—Household empty can compactors to be used with coin operated vending machines. Est. annual purchase $50,000. Newly estab. distr. of waste treatment machines & equip. & anti-pollution devices. Est. annual sales $300,000. Ref.: Tokai Bank, Higashi Br., Nagoya. Reply to: Yoshiaki Ito, Mng. Dir., Santoh Co., Ltd., Nihon Kiin Kaikan, 7th. Floor, 1-13 Shumoku-Cho, Higashi-Ku, Nagoya 461, Japan. Tel.: 052/961/7477.

Communications equipment

• **36610—ETHIOPIA** — Beyene Desya, Gen. Mgr., Telecommunications Service of Ethiopia, CPO Box 1047, Addis Ababa, has issued tender no. 21/76 for supply of 55 manual telephone exchanges of various types, bid deadline Nov. 25. Also, tender no. 22/76 for supply of 40-unit two-way, fixed-station, single-channel, solid-state VHF radio link system, capable of good quality telephone communications by line-of-sight up to 100 kilometers, or near line-of-sight to 60 kilometers. Should be small, modern, highly reliable and designed to consume minimum power. Bid deadline Nov. 29. Copy of specifications for each tender available free of charge from above address.

• **36620—BANGLADESH** — Project Manager, ADB Aided Project, Bangladesh Railway, Railway Bldg., Chittagong, has issued tender No. COS/SIG/ADB/2-TEND for supply of railway signaling equipment. Bid deadline Dec. 11. Copy of specifications available from above address at TK 200 plus postage charges of TK 15.

Instruments for measurement, analysis and control

• **38230—INDIA** — Directorate General of Supplies and Disposals, Parliament St., New Delhi 110 001, has issued tender No. P/220/532/20-8-76/P3 for supply of ten electric loggers. Bid deadline Nov. 15. Copy of specifications available from Supply Wing, Embassy of India, 2536 Mass. Ave., NW., Washington, D.C. 20008, at $5.30 per set.

3823078, 3662310—ITALY—Multi (up to 6) station tetraethyl lead vapors detector with sensitivity range from 50 to 150 micrograms/cu. meter of air at room temp., complete with 24 hr. record chart. Firm is large mfr. of tetraethyl & tetramethyl lead antiknock products for fuel gasoline. Equip. urgently required for own plant. Well known entity of very good reputation. Banking sources assign it high credit rating. Telephone or telex: Carlo Randaccio, Pres., S.L.O.I.—Societa Lavorazioni Organiche Inorganiche, via Calzolerie 1, 40125 Bologna, Italy. Tel.: 051/229405; telex: 51652 Sloi Bo Irim.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Wood products

2499583—SWEDEN — Wooden trays & chopping boards for household & institutional use. Co. intends to buy 40,000 trays & 40,000 chopping boards if prices offered are competitive. Small, well-estab. co. & finan. sound. Business obligations have been met satisfactorily. Reply to: Goran Nygren, Firma Cany, Box 117, S-640 31 Mellosa, Tel.: 0157/60320.

Electronic components, accessories

3674992—SWEDEN—Solar cells and accessories. Fertronic, which is a subsidiary of Eric Ferner AB, one of the principal Scandinavian agents in electronics, represents National Semiconductor Corp. Highly recommended trade contact. Reply to—Stefan Kristrom, Fertronic AB, Box 56, S-161 26 Bromma. Telex: 10312; Telephone: 08/25 26 10.

Electrical machinery, equipment, supplies

3693096—SWITZERLAND—Heart valves, arterial grafts. Small to medium enterprising distrib. of medical instruments & surgical supplies. 10 employees. Sales territory: Switzerland & neighboring countries. Bank ref: Swiss Credit Bank, Witikon, Canton Zurich. Good reputation. Reply to—Reto Edelma N, Dir., Danieli A.G., Lohwisstrasse 28, 8123 Ebmatingen. Cable Danag; tel. 01-94 02 81; telex 57320.

Visiting Buyers & Officials

SWEDEN—John Wattin of Stockholm is interested in being contacted by U.S. manufacturers or suppliers of **sporting, camping and boating goods as well as arts and crafts products**. He may be contacted through Theresa Rettig, 202-377-3265.

AUSTRALIA — R. Michael, Mng. Dir., Dacqs Pty. Ltd., Lane Cove, will be visiting the United States this month to purchase **OEM equipment** such as data storage, display, input, output, tape transports, tape drives, printers, etc. His firm assembles office computer systems and

markets OEM equipment in Australia. He will visit San Francisco, Marina del Rey and Hayward, Calif.; Oklahoma City; Skokie, N.Y.; and Middletown, Conn. American suppliers may contact Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

AUSTRALIA — N. B. Thomas, Mgr., Repco Accessories Pty., Ltd., Bankstown, will attend the 8th Annual Automotive Parts and Accessories Association Show, Las Vegas, Oct. 20-21. He will spend two weeks in the United States to contact American suppliers of **automotive accessories** of all types, but particularly hand tools for home and garage and accessories for campers, caravans, off-road vehicles and powered boats. Repco is Australia's largest distributor of auto parts and accessories. Contact Bill Corfitzen, 202-377-2068.

ITALY—Pietrangelo Battaglini and Antonio Cina of Milan want to establish contact with U.S. suppliers for purchase of **aluminum and magnesium alloys and scraps and eventual purchase of equipment for aluminum processing** (dies, presses, etc.). They may be contacted through Theresa Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3265

UNITED KINGDOM — George King of Birmingham is interested in hearing from U.S. firms interested in reciprocal trading deal. His firm manufactures **auto "pop-on" sun roofs, glass roofs, and steel electrically-operated roofs.** He may be contacted through Theresa Rettig, 202-377-3265.

AUSTRIA—Mr. Traub and Mrs. Rupp, Manager and Director of Josef Rupp GMBH, Lochau, will visit the United States Oct. 26-Nov. 1 to acquire new technology and equipment for **cheese processing.** Rupp is large producer and distributor of cheese employing 180 people. Buyer Wolfgang Alge is at Food and Dairy Expo, Atlantic City (Oct. 10-14). These buyers may be contacted through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

Benin Seeks U.S. Firms To Publish Brochures

The tourist agency for the Government of the People's Republic of Benin, Office National Du Tourisme et De L'Hotellerie (ONATHO), is seeking inquiries from U.S. companies for the publication of tourist brochures in English, French, and German. The Agency's present contract is nearing expiration and ONATHO welcomes introductory correspondence from American firms to produce the literature.

Brochures presently in use include a five-page, single-sheet foldout, 20 by 8¼ inches, with 8 full-color photographs, a six-color outline map of Benin, five pages of type matter, and a full-color, two-page aerial photograph of Ganvie, the major tourist site near Cotonou. Estimated need for this brochure is 50,000 copies. Also in use is a 48-page, soft-cover "Passeport Touristique" that includes 15 color photographs and 31 pages of type. Estimated need for this piece is 6,000 copies. Parties interested in this export opportunity should correspond, preferably in French to: M. Nicholas Oshumare, Directeur, Charge Des Etudes Et De L'exploitation, ONATHO, B.P. 89, Cotonou, Republique Populaire Du Benin.

Future Construction Abroad

COLOMBIA—Choucair Fegali, President, Minera El Sol and Minera Arabe Latinoamericana, has announced that these **two companies have been established in Colombia with Arab and Colombian capital to undertake several large projects** including exploration, exploitation, transformation, beneficiation and exportation of "coal and existing minerals in Colombia and other Latin American countries." Project also will involve installation and start-up of modern refinery in Egypt for treatment of concentrated minerals imported from South America. Fegali estimates that initial investment of $200 million will be needed, with 85 percent of technology, machinery and equipment coming from U.S. and remaining 15 percent from Colombia and Arab countries. To complement abovementioned projects, two concentrating plants and one refinery will be constructed in Colombia. Fegali estimates that additional investment of $150 million will be required for acquisition of machinery, equipment, tools, handling systems, transportation equipment, installation, and start-up of this part of project, also to be purchased in U.S. 15 percent of total investment has been obtained from Arab and Colombian sources. Officials of company are looking for remaining 85 percent from U.S. or other foreign sources, keeping in mind Andean Pact restrictions regarding foreign investment. If foreign investment is not obtainable for all project costs, long-term financing for U.S. equipment will be sought. Firm will consider any type of offer for equipment, technology, or U.S. capital. Turn-key offers are preferred. Interested U.S. firms should contact: Khalil Choucair Fegali, President, Minera El Sol, Soc. Ord. De Minas, Carrera 7 No. 12-70 Oficina 706, Bogota.

INDIA—Vinay Poddar, Chief Executive, Jay Transmission Pvt. Ltd. (JTP), S-155 Panchshila Park, New Delhi 110017, wishes to represent a U.S. deep-water-well drilling and service contractor interested in undertaking turnkey job for **installation and commissioning of about 23,000 tubewells** (depth ranging from 100 to 500 meters) in State of Uttar Pradesh. In addition to technical/engineering and personal services, would require imported equipment such as mobile rigs, slotting machines, saws and accessories. Import component will be funded from $45 million IBRD loan. Interested firms should contact Poddar directly. OPIC.

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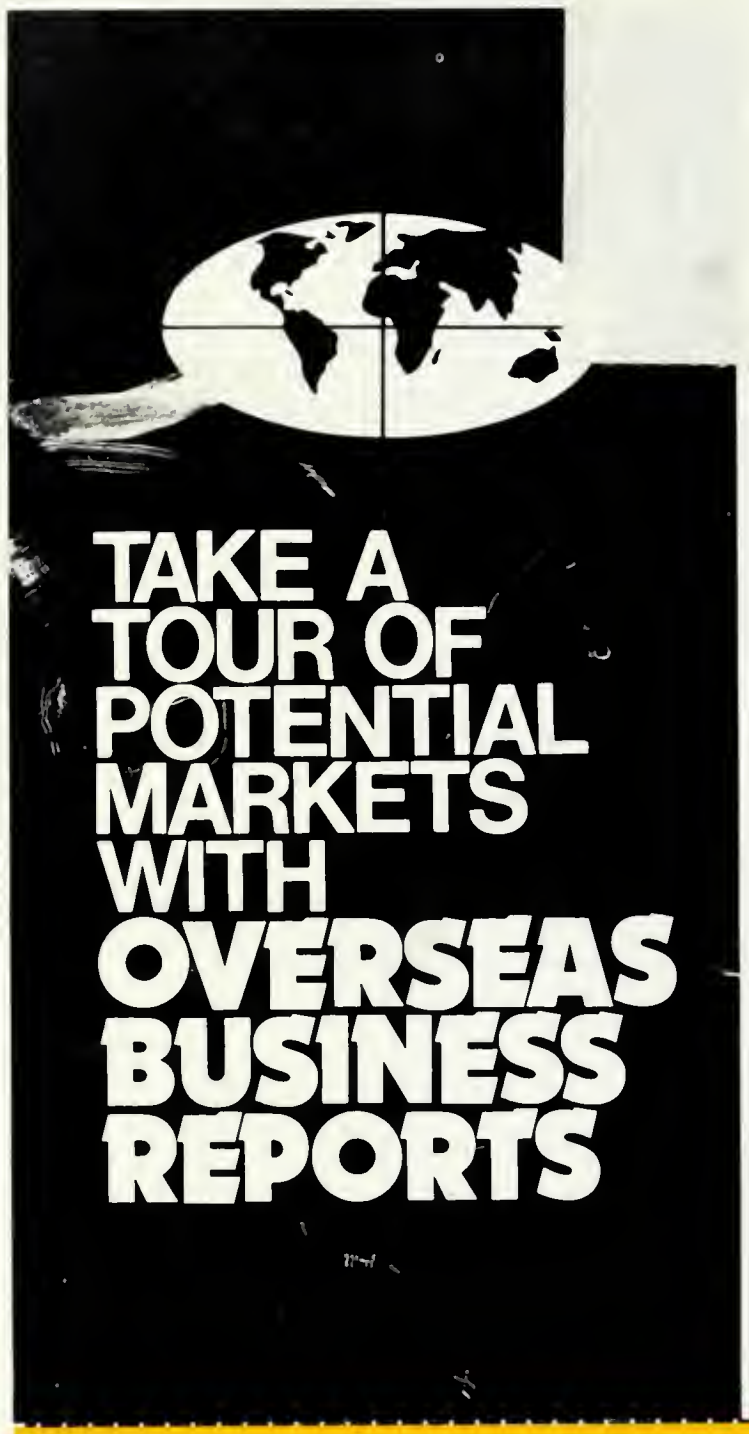

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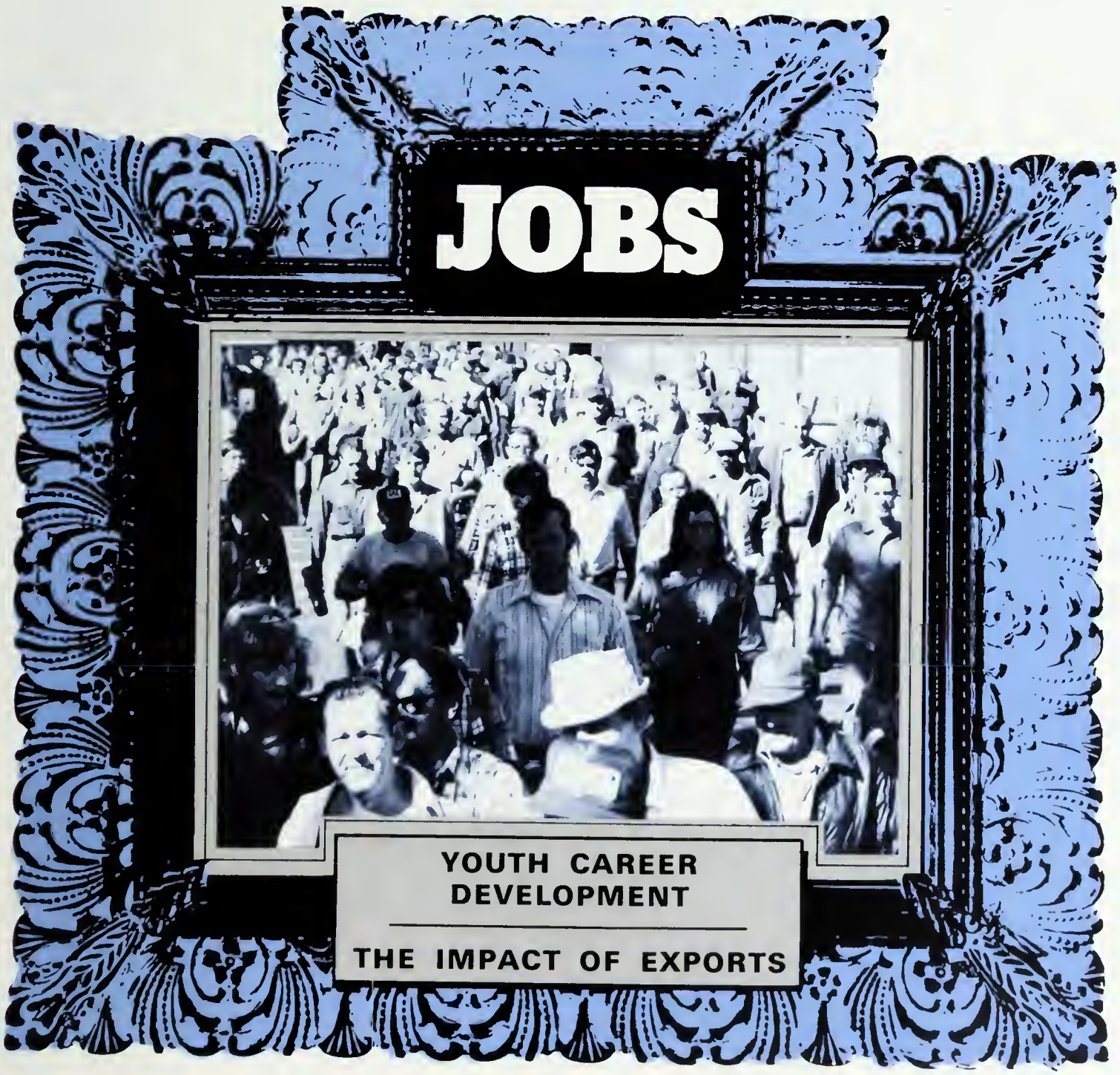

Newsmemo

American business is not effective in making its voice heard. So concludes Commerce Under Secretary Edward O. Vetter, who came into government recently after a business career. He observes: "For example: when the business community speaks up in favor of the Domestic International Sales Corporation law, the message often comes out sounding like 'windfall.' When business complains about inadequate capital formation and proposes increased investment tax credits, lower corporate tax rates, and elimination of double taxation of dividends, it frequently comes out sounding like 'giveaway.' "

Doing business with the USSR begins with an exploration of the country and its people. That is the premise of an unusual trip being sponsored for U.S. businessmen by the Citizen Exchange Corps, the Int'l Business Center of New England and the New England Council from Nov. 18 to Dec. 2. "Not a business trip but an exploratory trip," says the Exchange Corps about its venture. The leaders, however, are an experienced U.S.-Soviet trade consultant and an industrial translator-interpreter who lived in the USSR 17 years. The Corps, at 145 Hanover St., Boston, Mass. 02108, still has room for interested U.S. businessmen.

Canadians and Australians are, like Americans, people on the move. A new Census Bureau study shows that residents of the three nations will, on the average, make 12 moves from one house to another over their lifetimes. An average Briton probably moves eight times, compared with seven for a Japanese, six for a Taiwanese, and three to four for a resident of Ireland. The study's authors believe that the three nations of high mobility are reflecting, to some degree, their advanced level of industrialization and urban development, but also are acting out of an immigrant background. People who have moved once find subsequent moves easier.

Sister Cities are cities looking together for solutions to urban problems. In this private, non-profit program are 600 U.S. cities, linked with more than 700 abroad to help transfer skills and techniques in the struggle to overcome urban difficulties. Thomas Gitting of Sister Cities International comments: "The world today has become a world of cities. By the end of this decade, three-quarters of our global population will reside in urban communities." A recent AID grant will help the Sister Cities staff design specific approaches to the problem of assisting the urban poor.

The U.S. Trade Center is alive and well in Paris. A look at the Center's record during the past fiscal year (as an example of activity at such Centers abroad) shows that more than 200 U.S. firms used it to introduce their products into the French market. A total of about $208 million in new export sales, it is estimated, was achieved through eight major trade exhibitions and a number of other promotions at the facility at No. 123 Avenue Charles de Gaulle.

Newly honored by his peers in the foreign trade field is Reginald H. Jones of General Electric. He is the 39th recipient of the annual Dollar Memorial Award of the National Foreign Trade Convention, to be held in New York Nov. 15-16. The award recognizes his leadership in speaking out for freer international trade, for clarifying the relationship between foreign trade and foreign private investment, and for emphasizing the need to keep the U.S. competitive in the world marketplace.

Increased job security and a voice in management. Will U.S. workforces make these their goals in the not-too-distant future? Precedents in Europe and Japan hint at the possibility, specialists of the Diebold Group told business executives at a Washington seminar. The response of business, it was recommended, is to look at such a challenge as an opportunity, and make the most of it through new personnel approaches. An example, on the decision-making issue: try the team system that allows assembly line workers some autonomy and self-management in performing given tasks.

Demands for "lifetime" employment need not portend business disasters. A suggested Diebold response would be to see labor as a fixed cost. This could bring such benefits as reduction of unproductive expenses during slowdowns, drops in labor turnover costs, and better adaptation to new technologies by a workforce unafraid of being made obsolete. It requires new personnel attitudes, recognizing training and retraining as a major activity, and building up adaptability to shifts rather than job specialization.

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COVER: Jobs, as seen from two aspects, form the subject of both major features in this issue. The story beginning on page 4 concerns employment of youth; the second, beginning on page 8, the impact of exports on the job market. Photo shows Caterpillar workers.

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Government Share Of GNP Rises Moderately Since 1955

This column was written by John W. Kendrick, Commerce Chief Economist, in collaboration with G. Donald Hanrahan.

John W. Kendrick

Government has expanded at a moderately faster rate than the total economy over the past two decades, and public sector growth has occurred primarily at the state and local levels. Examination of government expenditures also shows that substantial shifts have occurred in the proportions of public resources allocated to major governmental functions. This article examines the growth of government expenditures in the United States relative to growth in the total economy, as well as changes in emphasis among various governmental objectives.

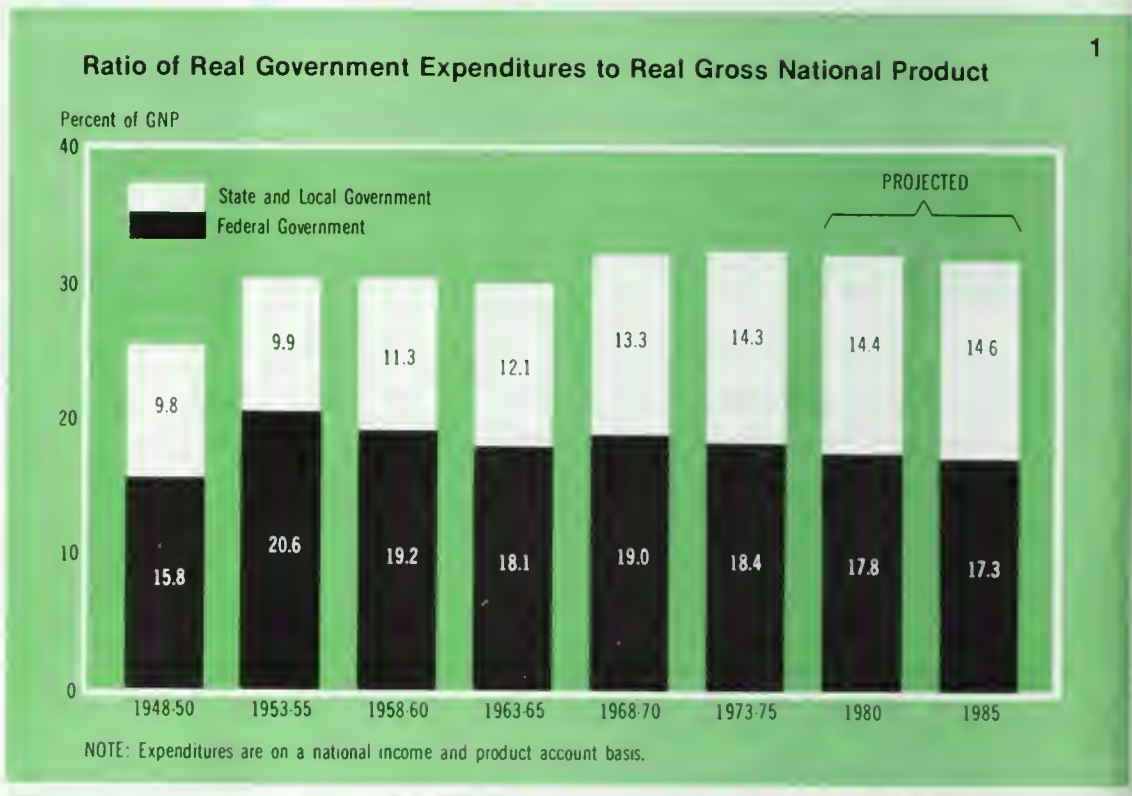
Although our economy relies heavily on the private sector to allocate resources, numerous services are provided to the public by federal, state and local governments. National defense, public safety, education, health, welfare, and other services are generally accepted as appropriately allocated through government. In performing these functions, the public sector purchases goods (usually from business) and services (usually from individuals). These purchases from the private sector represent the government component of Gross National Product (GNP).

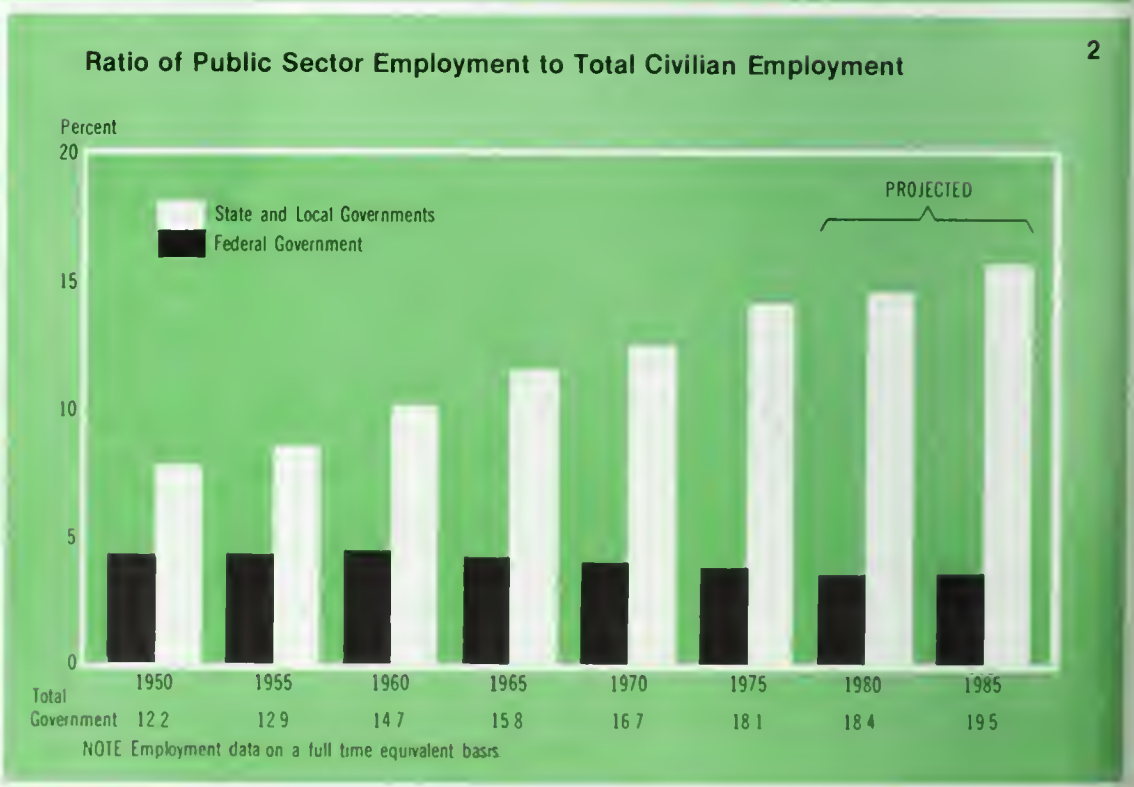
In addition to providing direct services, governments transfer income through their tax systems and through social programs, many of which provide for income maintenance. The Federal Government also plays a significant role in economic stabilization. In this role, it often finds itself as a net borrower which tends to increase the interest outlay of the public sector.

In recognition of the transfer, stabilization, and direct services roles of governments, an analysis should reflect the total expenditures of the public sector—including transfers and interest payments as well as the government purchases component of GNP. The ratio of total expenditures to GNP is a suitable measure for comparison of the growth of public expenditures relative to the overall economy.

In using the ratio of expenditures to GNP as a measure of relative change over time, two precautions are in order. First, because the rates of inflation differ between the public and private sectors, it is necessary to adjust the data for inflation before calculating the ratios. If current-dollar values are used, a considerable exaggeration of the public sector's growth results since price increases have been faster in the public sector than in the economy as a whole.

Second, because of the cyclical sensitivity of the GNP and of some expenditures, particularly unemployment com-





pensation and interest payments, there is an upward bias in the ratio during slack times in the economy and the opposite bias during expansion and boom times. To correct for this problem, 3-year averages of the ratios were taken.

The ratios calculated in this manner show that growth in public sector expenditures relative to the GNP has slowed during the post-war period. Although from 1950 to 1955 the gain in the ratio of expenditures to the GNP was 4.7 percentage points, the increase was only 2 percentage points from 1955 to 1970, and virtually no change has occurred since. The three-year average ratio increased from 25.8 percent in 1950 to 32.5 percent in 1975. If the ratio had been derived from current-dollar values of expenditures and the GNP, the increase would have been from 21.1 percent to 32.8 percent. Thus, the current-dollar values, often used in discusssions of public sector growth, overestimating the growth of public sector spending in respect to the growth of the GNP by 5 percentage points.

Furthermore, the ratios show that expenditures through the Federal Government (excluding grants-in-aid which are spent through the state and local governments) have experienced a net decline of 2.2 percentage points as a percentage of GNP since 1955. This conclusion conflicts with the image frequently conveyed regarding the growth of federal expenditures. Since 1955, the growth of expenditures has been primarily through the state and local governments. In the shift of expenditures toward other levels of government, federal grants-in-aid increased as a portion of GNP from 1.8 percent in 1963-5 to 3.5 percent in 1973-75.

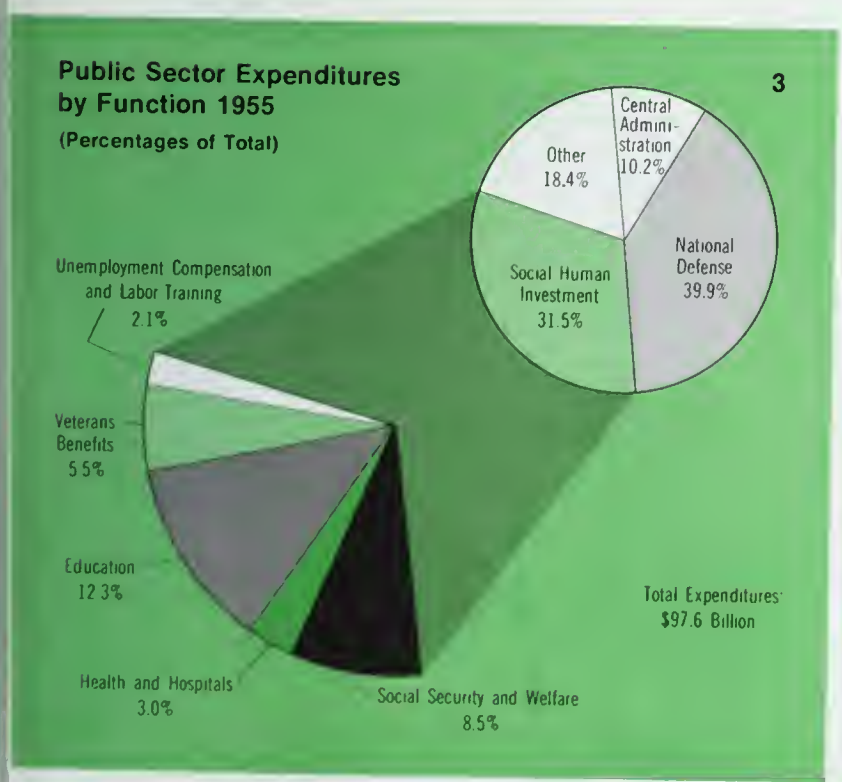
The concentration of public sector growth at the state and local levels is likewise immediately evident from inspection of the ratios of public sector employment to total employment. On a full-time equivalent basis, state and local government employment almost doubled between 1950 and 1975 as a proportion of total employment. In absolute terms, state and local government employees numbered 3.7 million in 1950 and 10.2 million in 1975. Even though federal employment rose from 2.0 million to 2.8 million over the same period, the federal proportion of total employment declined from 4.3 percent to 3.9 percent. This growth in state and local government employment reflected the increase of educational services that accompanied the rapid rise in the school-age population in the 1950s and 1960s. More recently, as the educational effort stabilized, attention has been directed toward public assistance and relief efforts.

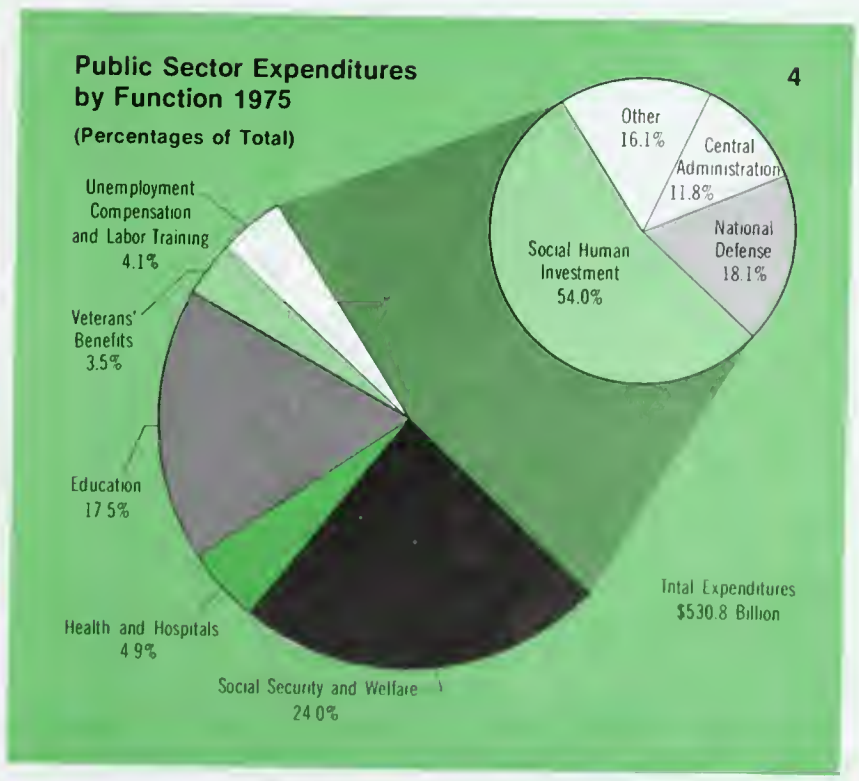
An exercise projecting the public sector expenditures into the next decade indicates that current relationships will not change much, although there will be some contraction in the ratio of federal expenditures to GNP, and possibly a slight rise in the state and local share. On a net basis, there may be a slight contraction in the share of total public expenditures. Even though the elementary and high school age population will diminish, this factor will be offset by a rise in the proportion of the population over 65 years old and in the services this age group receives from the public sector.

The shifts among major governmental sectors are at least as important as the changes in total governmental expenditures. Charts 3 and 4 indicate the extent of the shift from national defense to social human investment. In the 20 years between 1955 and 1975, expenditures directed mainly towards income maintenance and human improvement have increased almost half again as a portion of the total, going from 31.5 percent in 1955 to 54.0 percent in 1975. For the most part this increase has been accompanied by a decline in the relative share of national defense. As the data indicate, three-fourths of the expansion of 22.5 percentage points in social human investment has occurred in social security and welfare. By 1970 the share of budgetary resources allocated to social security and welfare surpassed the share going to national defense.

The increased emphasis on social human investment in the priority scheme of the public sector's budget has been accompanied in the past decade by an increased reliance on transfer payments, both at the federal and the state and local levels, and on federal grants-in-aid to state and local governments. In 1965, the 3-year average ratio of transfer payments to the GNP was 5.6 percent whereas the similar average 10 years later was 10.0 percent, 4.1 percentage points of the gain being attributable to the increase of federal transfer payments.

In summary, this analysis of postwar public sector expenditures shows that: (1) the ratio of public sector expenditures to GNP has levelled off in recent years, and it appears that it will remain fairly stable in the next decade; (2) since 1955, the growth in public sector expenditures is attributable to the state and local governments; (3) social human investment expenditures now account for over half of the total public sector expenditures, having displaced much of the share of national defense; and (4) the use of transfer payments and grants-in-aid has increased.





JOBS

YOUTH CAREER DEVELOPMENT

A six-point program designed to help close the gap between available job opportunities and the education and training of young people to hold the jobs is advocated by Secretary of Commerce Elliot L. Richardson for consideration by the nation's business, industry and professional employers. An effort is being made to aid youths in obtaining jobs that make sense as well as money for them.

A conference on Youth Career Development was convened in Washington recently by Secretary Richardson to discuss with representatives of business, labor, youth, government and education a proposed "Agenda for Action."

The program is designed to encourage the private sector to use its resources more effectively to stimulate career awareness, preparation, and selection as well as employing greater numbers of American youth.

The agenda recommends that business:

- Adopt high profile advocacy for youth career development. Establish a well publicized position supporting career education. Direct concern and personal commitment from the top are essential for efficient organization-wide involvement in work/education collaboration.
- Take the initiative by making sure career education is educational policy. American youth gets its education in school, college, vocational school, the military, at work, in the home, at church, in youth organizations. Career education can help all these serve American youth better.
- Commit resources by assisting educators in career education programs. Youth career development means bringing students and educators of all descriptions into direct contact with the world of work. This requires explicit support from private sector employers.
- Collaborate in work/education by active involvement of employers, employees, educators, public officials, and service organizations. This is essential to bring the world of work and education closer together. Join an existing organization before starting a new one but work actively and get involved in a program that makes sense for the community.
- Expand career opportunities by eliminating artificial barriers and occupational stereotypes. Support efforts to review and revise laws, regulations, and certification requirements which impede work experience and career development. Make individual merit, personal competence and real productivity the employment standards.
- Invest in the future by sharing job market data collections and projections. Vastly expanded and highly innovative schemes for collecting and projecting job market requirements are being developed at local, state, and national levels. The success of these systems clearly depends on the support and participation of private sector employers.

Several of the conferees stressed the need for thorough schooling of young people in the three R's. The lack of thorough grounding in the three R's was cited as a major deterrent to youngsters obtaining and holding well-paying jobs.

As new technologies come into being and industry becomes more specialized, said one participant, greater skills on the part of youth are required to hold jobs. Often, it was pointed out, these jobs require a good background in mathematics.

Among other points made in the discussion were:

Career education and employment may help to reduce crime. Teacher training will help to develop a better general understanding of the economic system. Educators are often eager for business involvement in the educational process but look to business to take the initiative.

Guidance counsellors in schools too often have become social counsellors and administrators. A career education program has to be undertaken at the local level and must be followed through. The possibility should be considered of setting up a clearing house for ideas. There is need for a central structure in career education through which small business can cooperate.

One difficulty cited was that "educators often do not understand industry, industry frequently doesn't understand educators, neither understands organized labor, and organized labor doesn't understand the other two." This fracturization of understanding, it was pointed out, emphasizes the need for better communication as a means of developing better understanding.

In welcoming the group, Secretary Richardson pointed out that increases in unemployment occurring in the two months preceding September "have been wholly increases in teenage unemployment."

However, the September jobs figures, released by Commerce's Census Bureau, showed a drop in overall unemployment of from 7.9 percent of persons 16 and over in August to 7.8 percent in September, attended by declines in teenage and black unemployment.

A percentage breakdown in unemployment by different groups in August and September shows:

August: Adult men, 5.9; adult women, 7.7; teenagers, 19.7; whites, 7.1; blacks and other; 13.6; household heads, 5.2; married men, 4.2; fulltime workers, 7.5; black and other males, 20 and over; 9.9; black and other females, 20 and over, 12.3; black and other teenagers, 16 to 19, both sexes, 40.2.

September: adult men, 6.1; adult women, 7.5; teenagers, 18.6; whites, 7.1; blacks and other, 12.7; household heads, 5.4; married men, 4.6; fulltime workers, 7.5; black and other males, 20 and over, 9.6; black and other females, 20 and over, 11.4; black and other teenagers, both sexes, 16 to 19, 38.5.

"The overall increase in the number of jobs and the number of entrants into the labor market have both been at unprecedented rates," Richardson said. "We see in addition steadily mounting rates of employee turnover and absenteeism. We see the increasing cost to society and to individuals of worker alienation and deferred hopes for a better life. We see the work ethic itself threatened with increasing doubts among young people about the value to self and to society of having a job and putting forth one's best effort."

He said he was never sure that "work ethic" was an appropriate phrase, since it seemed an inheritance from Puritanism "that felt that working was analogous to donning a hair shirt, something that one did because of sheer obligation.

"What we need to understand better," he said, "is that there are no satisfactions or few that are more fundamental than the satisfaction of doing a job well."

Quoting William Faulkner, he said "there is nothing else really you can do for eight hours a day that will give you satisfaction." He pointed out that a person normally cannot eat or make love eight hours a day, and that if he spends eight hours a

Career education and employment may help to reduce crime . . .

day fly or bass fishing he will likely not be able to keep it up 365 or even 300 days a year.

"The significance of work as a kind of satisfaction that no one else can give and no one else can take away," Richardson said, "is something that we have got to do a better job of communicating . . . It seems to me clear that any effective response to these issues requires the collaboration of all sectors of our society, especially our communities. More concern, even our cooperation, won't suffice.

"We need active participation, the assumption of responsibility, and the investment of resources in helping young people find jobs and careers that are satisfying to them and beneficial to society.

"Those who recognize that their vital interests are at stake in helping young people develop a career orientation will not settle for less than active participation. Those who fail to recognize that their vital interests are at stake do not understand the problem."

Richardson appealed to those present for "your ideas and your insights," adding: "We want to incorporate your individual and collective judgment in the role of government."

Irving S. Shapiro, chairman of E. I. DuPont de Nemours and Company, and the current chairman of the Business Round Table, pointed out that the nation's economy is expanding, and that the labor force is growing with it.

"More people have jobs than ever before—a total of 88 million," he said.

The big problem, he said, is unemployment in the under-20 age group, since half the unemployed in the country fall in this group. To bring down the unemployment rate and provide for the growing labor force, he added, it will be necessary to create at least 2.5 million new jobs a year in the U.S. for the next four or five years.

Shapiro said that at least three stumbling blocks stand in the way of linking up the jobs that need people and the people that need jobs:

—The jobs that need doing are not necessarily located where the unemployed people are. Call this the geographic or mobility problem.

—People who need jobs do not necessarily know enough about them. Call that the information problem.

—Young people often do not have the skills to qualify for jobs. Call that the training problem.

Shapiro said that the information and training problems are the tougher challenges, and that they can be handled only if business and government work together as active partners.

"That partnership," he added, "does not imply the creation of many new job opportunities in government. To the contrary, the large majority of the new jobs ought to come in the private sector. Furthermore, we are talking about enduring jobs, jobs that have a future, and not about transitory jobs which have a 'make work' quality about them.

"This point should be kept in mind because there are some proposals afloat here in Washington to tackle the unemployment problem by setting up percentage targets and a timetable.

"I am all for getting unemployment down, but some of the mechanisms proposed do not appeal to me at all. For example, one bill in Congress would add somewhere between three million and eight million people to the government payrolls, and cost an additional $24 billion to $48 billion per year.

"Government already employs one person out of six in this country, and with the federal budget running a heavy deficit it is hard to develop enthusiasm for another program with a price tag in the tens of billions—particularly if there is an alternative available . . .

"In the final analysis there will be no magic wand in Washington that will provide a solution. In my view, it will come from a large number of specific actions taken in various communities across the land."

Ten programs illustrating a variety of private sector approaches to youth career development discussed by several expert's in the field follow:

George McCormick explained the City-Wide Education Program of Des Moines, Iowa, involving an Advisory Committee for Career Education composed of 22 members from business, industry and labor and three students to oversee career education programs at the elementary, junior high, and high school levels. Included were help to teachers instructing students, an agri-business program, an executive internship and nursing program.

Bernard Novick, director of the Central Jersey Industry-Education Council, Woodbridge, N.J., said

. . . information and training problems are the tougher challenges . . . they can be handled only if business and government work as partners . . .

Further information about the Youth Career Development program is available from the following Commerce Department Secretarial Representatives who welcome comments:

Region I (Me., Vt., N.H.; Mass., Conn., R.I.)—Daniel A. Cronin, John F. Kennedy Federal Bldg., Room E429, Boston 02203.

Region II (N.Y., N.J., Virgin Is., P.R.)—Michael A. McManus, Jr., Federal Bldg., Room 1311, 26 Federal Plaza, New York City 10007.

Region III (Pa., Del., Md., W. Va., D.C., Va.)—Charles Day, Wm. J. Green Federal Bldg., 600 Arch St., Room 10424, Philadelphia 19106.

Region IV (Ky., Tenn., Miss., Ala., Fla., Ga., N.C., S.C.)—Richard L. Heffner, 1365 Peachtree St., Suite 300, Atlanta 30309.

Region V (Ohio, Ind., Ill., Mich., Wis., Minn.)—James P. Stirling, CNA Bldg., Room 1402, 55 E. Jackson Blvd., Chicago 60604.

Region VI (La., Ark., Okla., N. Mex., Tex.)—Edward L. Coker, Federal Bldg., Room 9037, 1100 Commerce St., Dallas 75242.

Region VII (Mo., Ia., Nebr., Kan.)—Gayle W. Jackson, Federal Bldg., Room 1844, 601 E. 12th St., Kansas City, Mo. 64106.

Region VIII (Colo., Utah, Wyo., Mont., N. Dak., S. Dak.)—John R. Bermingham, Title Bldg., Room 515, 909 17th St., Denver 80202.

Region IX (Az., Nev., Calif., Hawaii)—Robert J. Hitt, Federal Bldg., Box 36135, 450 Golden Gate Ave., San Francisco 94102.

Region X (Idaho, Wash., Ore., Alaska)—Fred C. Shanahan, Jr., Federal Bldg., Room 958, 915 Second Ave., Seattle 98174.

the purpose of the Council is to develop cooperation among the business, industry, labor and education communities to carry out activities relevant to career development. This has become a joint venture of business, industry, and labor and five school districts in the county.

Kenneth Smith, president of 70001 Ltd., Newark, told of a nationwide program for out-of-school youth that combines job placement and career preparation, academic instruction, and motivation for young people in the 16-22 age bracket. Enrollees in the program are guided into unsubsidized private sector employment. They are required to work toward a High School Equivalency Diploma after hours.

Fred Koch, a Memphis department store executive, reviewed the Memphis Volunteer Placement Program established in 1968 and developed as a counseling program to aid high school students with career planning.

B. J. Armstrong, education supervisor, explained the Vought Corporation Cooperative Engineering Program of Dallas involving colleges and universities in the Southwest. Promising high school seniors have been trained for engineering and other jobs, and none of the engineering coop students has been laid off.

Harry R. Kennison, product consultant for Western Electric, discussed the Technical Advisor Program of Denver, an idea conceived at Western Electric. The main purpose of the program is to supplement and enrich the high school curriculum. Advisors donating one to two hours per week help students with projects or problems.

Charles E. Bradford, director, Human Resources Development Institute, AFL-CIO, explained the Vocational Exploration Program of the Institute. The program is carried out by the Institute and the National Alliance of Businessmen. These groups recognized the correlation between students who leave school and the number of unemployed and unemployable persons, and are trying to deal with the problem. Students are placed with private employers and labor unions, with whom they gain experience in various occupations.

Susan Odegard explained the Exploratory Work Experience Education Program in San Francisco. The program is sponsored by the Security Pacific Bank, of which she is personnel relations officer, in an effort to improve the career development of youth in California. Students 16 and older who have expressed interest in banking as a possible career are selected by their schools to participate.

Chester H. Francke, director of education systems planning, talked about General Motors corporate policy on career education involving help to schools and colleges, particularly in GM plant city communities, by active participation in providing classroom speakers and instructional materials on specific career; providing plant visits; cooperating with educators in designing career curricular and teaching aids; cooperating in career orientation programs for educators; and service on industry-education advisory councils.

Joseph M. Bertotti, a General Electric corporate education relations executive, explained the Educators-in-Industry program of Fairfield, Conn., in which General Electric helps educational administrators, teachers, and guidance counselors upgrade their information about the world of work, vocational guidance and career development.

The conference was chaired by Joseph H. Blatchford, Deputy Under Secretary of Commerce for Field Programs. See box on facing page for additional information.

". . . there will be no magic wand in Washington that will provide a solution."

JOBS

THE IMPACT OF EXPORTS

The U.S. foreign trade community recently put some important points before the nation about its contributions to America's job strength. Some are already well-recognized, others only vaguely understood, still others obscured in controversy:

▶ Exports do add major and growing numbers of jobs in manufacturing, in agriculture, and in construction, engineering and other service industries.

▶ Exports have emerged recently as a stabilizing factor in U.S. employment, as demand abroad countered falloffs in U.S. sales and, later, growing domestic demand helped offset a softness in activity abroad.

▶ Exports of manufactures from the U.S. contain a large quotient of shipments from U.S. parent firms to foreign subsidiaries.

▶ Such "hidden" exports must be brought to public attention, industrialists are realizing, to rebut widely-stated claims that the operations abroad of many U.S. firms lead to "runaway jobs," and that foreign trade costs the U.S. domestic jobs.

▶ Also, exports widen a firm's supporting base for its U.S. activity in such fields as research and development. American companies operating worldwide tend to concentrate their R & D work in the U.S., creating jobs for scientists and technicians.

▶ But foreign trade is a two-way street, and job losses may occur in some industries where production advantages are greater abroad. Radio-TV manufacturing is one major example.

▶ And while exports obviously support millions of U.S. jobs . . . how many? Current statistics would aid the promoters of foreign trade, but are difficult to come by. Measuring the "ripple," or indirect, effect of exports on the whole production-transport-sales-insurance-advertising process is just one problem here.

These points were made at a series of public hearings conducted by the Department of Commerce last month in Houston, Chicago and Kansas City, held to assess the current impact of exports on the nation's employment situation. Among those testifying were executives of large and small manufacturing firms, bankers, representatives of state and local chambers of commerce and business development agencies, officials of organized labor groups, and members of the academic community.

The "counter-cyclical" benefits of exporting—in which rising export sales take up the slack for falling domestic demand, and vice versa—were cited by companies large and small, from Dow Chemical with thousands of employees, to a food processing firm that could measure export impact on single jobs.

The Dow story was told by Vice President Herbert H. Lyon: "During the peak of the (recent) recession, when our physical volume in the U.S. was down more than 20 percent, we laid off only about 100 persons, or about ½ of 1 percent of U.S. employment. One of the primary reasons we were able to do this is that exports provided a cushion for us during this period. We were 99½ percent successful in avoiding layoffs and would like to have been 100 percent successful. But without exports at that time I can guarantee you layoffs would have been heavy and unavoidable."

Charles G. Manley, of Manley, Inc., a producer of food processing and food dispensing equipment, got down to specifics about the counter-cyclical effect of exports on his smaller firm: "In 1974 when the big food processing companies began stretching out, if not cancelling, their capital expenditure budgets we would have been faced with a massive layoff in our manufacturing division had it not been for the export of food processing machinery. During the last two years 75 percent of our food processing machinery volume has been sold for export. This is 40 percent of our total manufacturing volume. If export sales had not taken up this slack, 30 hourly paid factory employees, four sales people, two engineers, and probably three office people would have lost employment."

Robert H. Caplinger of Raymond International, a construction company, said "thank goodness" about the counter-cyclical effect of operating worldwide: "As the U.S. economy and U.S. building demand has gone down, the overseas demand has gone up for us and for the construction of foundations and for offshore facilities. That gives us the opportunity to achieve a balance in our corporate activity which produces a steady growth."

Robert T. Powers of Nalco Chemical also submitted a specific instance of export growth balancing domestic falloff, and vice versa: "In the first quarter of 1975, our domestic shipments decreased rapidly. At that time, export shipments were quite high. In the latter part of the year as export sales declined, domestic shipments increased steadily. As a result, we were able to maintain a uniformly high level of employment throughout the year."

Peter H. Reinhard of Magnus Overseas Corp.,

"Without exports at that time I can guarantee you layoffs would have been heavy and unavoidable."

Top officials of the Department of Commerce participated in the hearings on exports and U.S. employment. Secretary Elliot L. Richardson participated in a session in Chicago, and Under Secretary Edward O. Vetter and Assistant Secretary Leonard S. Matthews led the Commerce team in other sessions. The hearings were part of a continuing Commerce Department series seeking public views on current issues.

In addition to presenting details on export-related employment in their companies or areas, participants were also given the opportunity to make recommendations on Federal Government policies in the foreign trade field. Responses ranged from suggestions for the U.S. officials engaged in the current GATT Multilateral Trade Negotiations, to appeals for strengthening of the Commerce Department trade promotion program, and calls for more U.S.-supported export financing and export tax incentives.

Secretary Richardson said that currently in the world trading community there is a concerted effort to find an "area of maximum mutual advantage," and he set forth a theme: "The government alone cannot define that area of maximum mutual advantage. It cannot be the subject of any edict established by unilateral executive action. It must emerge rather as a result of our awareness of our common destiny as part of a world community and mutual desire to see that all are prosperous and fulfilled. This, in my judgment, must be the foundation of any approach to the intricate questions of tariff agreements, profits, jobs, wages, adjustment assistance and the thousand other pieces which constitute the mosaic of our nation's commerce."

"Finished goods and components shipped to our own overseas plants represent 30 percent of our total U.S. exports."

a Chicago export management firm that handles the export operations of 25 small and medium-sized companies in the communications equipment, electronics component and test equipment fields, also emphasized the stabilizing influence of selling to customers abroad. He noted that many of the producing firms he represents, faced by cutbacks in defense spending and the peaks and valleys of seasonal demand in the U.S., have been able to schedule production for export so as to maintain steady employment levels.

Reinhard gave specific credit to Commerce Department export promotion programs and to the DISC overseas tax deferral plan on export sales as having a "direct influence on production and employment in the U.S." He also observed that the trend in the postwar years to meet worldwide competition through offshore production or licensing arrangements "has largely subsided" among the industries he represents. He said this was due to improved production and marketing techniques, price restraints and more favorable rates of exchange.

Representatives of manufacturing firms were quick to emphasize the importance, as they see it, of the export "pull" exerted by their own foreign operations. Caterpillar, Borg-Warner, FMC and others made this a major point of their appearance at the hearings.

A typical observation in this regard was that of Robert B. Hyde of Dresser Industries, a company with broad interests in both products and services in the energy and natural resources fields.

He said: "Dresser is a global company—not by choice, but to protect against, reduce, or prevent the loss of a foreign market share which has been developed in the past by export from the U.S. Our overseas manufacturing facilities contribute significantly to export-related jobs. Finished goods and components shipped to our own overseas plants represent 30 percent of our total U.S. exports. Without the pull exerted by our foreign affiliates, the resulting loss of $120,000,000 in export sales would cost Dresser at least 2,900 U.S. jobs. And these foreign affiliates provide the primary channels and business contacts through which a major proportion of the rest of our export orders are won."

But Richard Deason, Chief Negotiator for the International Brotherhood of Electrical Workers, offered a completely opposing view. He commented: "Profit is not a dirty word, and no responsible union will take the position that profits are not necessary in order to create jobs, but profit maximization by going to low-wage markets such as Singapore and Taiwan and now to India merely allows for the erosion of jobs in the American economy. It creates additional unemployment and a situation whereby the United States will become a service country and in no way will maintain its lead as a producing country, and will allow the entire economy of this country to eventually depend upon multinational companies and upon foreign companies to import into the United States at will."

It was Deason's contention that "we allow ourselves as a nation to be set up to be the dumping ground for any country that decides to dump a product as a result of no quotas and no tariffs, and yet these very countries can impose exorbitantly high tariffs and very restrictive quotas to prevent American imports." Deason said that in one recent period the percentage of imported TV sets had almost doubled, with drastic effects on U.S. jobs.

James H. Ingersoll, a Borg-Warner executive who is President of the International Trade Club of Chicago, responded that "it would be a great tragedy to American trade and our competitiveness in the international marketplace to try to let this union's problem—which is a very severe problem and one for which I have great sympathy—be representative of the total workingman's place in the U.S. labor movement. I think that we have to recognize that if we are going to export, we have to import. This union is deeply concerned about imports. Well, I guarantee that if we don't sell overseas, we are not going to buy the things we need, particularly oil. It's just that simple."

Ray McCord of Texas Instruments in an earlier hearing had brought up the matter of production abroad, as it applied to his firm in another area of the electronics field. He introduced it by saying that Texas Instruments had increased its employment rolls an average of 6.2 percent per year from 1960 through 1975.

"Texas Instruments simply could not have created new jobs for Americans at that high rate for 15 years if we had not added capacity overseas," he added. "Having part of our production overseas has given us two vital keys to worldwide markets.

"The first key to success in world markets is provided by direct investments in the countries whose markets we wish to serve. Every country naturally wants to do business with a company that is identified as a permanent part of its social structure. Moreover, this local presence permits us to work effectively, on the scene, to satisfy our customers' needs.

"In 1973 at Texas Instruments we estimated that we would lose more than half our international markets to overseas competitors if we attempted to serve those markets merely by exporting finished products from the United States.

"The second of these keys is competitive prices. Unlike most industries, unit costs in the electronics industry are continually made to decline, allowing our prices to be reduced continually. The opportunities to reduce our costs are generated by increases in production volume. Our ability to succeed in world markets depends on maintaining this powerful regenerating cycle, in which lower costs lead to lower prices, which lead to higher volume and still lower costs.

"It is important to understand that, in the semiconductor business, overseas plants rarely manufacture a product from start to finish. Most often, all the piece parts that use high technology are produced in the United States. These parts are then shipped to offshore plants for assembly and sometimes returned to the United States for testing. In this way, the technology-intensive operations are performed in the U.S., while the more labor-intensive operations are performed overseas."

McCord also advanced the point that exports and foreign operations support the R & D activity that keeps his and other U.S. firms ahead of their worldwide competition. Lyon of Dow said at a later hearing that this role is "too often ignored."

McCord said that Americans should understand that foreign subsidiaries are fed by a flow of products and services that originate in the U.S.: "This is how our foreign direct investment generates U.S. jobs. TI, for example, does most of its research and

development for its worldwide organization in the United States—our total technical effort in 1975 amounted to roughly $190,000,000."

James E. Finneran of Pullman-Kellogg, an engineering-construction firm with global operations, said that the income his company earns overseas contributes to the support of a research laboratory in Houston: "These payments provide jobs for scientists and engineers in proving out new ideas. In this laboratory and others, these payments help to support research which will, in the long run, generate new American technology."

Describing the situation at Dow Chemical, Lyon said: "About one in every 10 jobs in Dow is a research job, and our basic research is carried on primarily in the United States. The added revenue from our sales abroad enables us to carry a much larger complement of personnel in our fundamental research base in the United States than would otherwise be possible. If we did not have the support of these sales we would certainly be able to provide far fewer research and development jobs in the United States, and with roughly half of our sales outside the United States the loss would clearly be considerable."

Finneran of Pullman-Kellogg told how U.S. contractors operating overseas create an immediate market for the American materials they specify on their projects. More than that, he added, "The market is a continuing one, since the facilities, in time, will require expansion or modernization or improvement, and it is most logical for the owner to return to the original contractor or original supplier. The supply of spare parts and maintenance materials represents another continuing export opportunity. This self-perpetuating market provides additional U.S. domestic jobs. Overseas contracts provide a unique means for introducing American machinery and equipment into new market areas."

The presentations at the hearings were sprinkled with statistics. These ranged from single plant employment figures to an estimate by an agricultural spokesman that 2,000,000 Americans are supported by U.S. farm exports, half of these in jobs off the farm, such as in transport or processing.

Differing yardsticks came into view as the statistics were offered. Dow Chemical's Lyon estimated each of 6,000 Dow jobs directly related to exports leads to 3 to 5 other jobs in the national economy. Roger T. Kelley of Caterpillar said that 29,000 export-supported jobs in his company were responsible for 58,000 others. Robert McLellan of FMC Corp. noted that a ratio of 2.5 to 1 was often used in computing export-related follow-on positions.

Three speakers presented figures on export-related employment in the state of Illinois, and each qualified them. Ted Silverman of the state industrial development agency departed from his prepared remarks to comment that his totals were not identical to those offered by representatives of the Illinois Manufacturers Association and the Illinois Chamber of Commerce. Richard A. Apland of the Chamber of Commerce reported that his group is currently updating figures that came out of a 1973 state foreign trade survey. Jack Roadman of the Manufacturers Association noted in presenting his figures that "available statistics are somewhat subjective."

The need for more current figures in the exports-and-jobs field should not deter the trading community from making its case widely known, it was agreed. Banker Roger E. Anderson was one among many who stressed the current need "to do a better job of informing the public, of spelling out the economic realities of the world in which we live and pointing out the ways in which our country's overall, long-run best interests may be realized." Promptly matching these words with action, the Continental Illinois Bank Chairman published a 16-page illustrated pamphlet containing his presentation to the Chicago hearing, a ringing defense of expansion trade policies with a perspective on the global developments that have brought the current explosive growth of international commerce. ☆

"The [export] payments help to support research which will, in the long run, generate new American technology."

Energy Digest

INDUSTRY AUDIT . . . The Federal Energy Office has joined the Printing Industries of America in an energy cost-reduction study of the nation's 17,000 small commercial printers. The study, the second of seven to be undertaken as a part of FEO's Small Business Energy Cost Reduction Program, will begin with detailed on-site energy audits and anlysis of selected small commercial printers. The results of these audits will be incorporated into energy cost-reduction guides to be published by the PIA and disseminated among its membership and other small printers in the industry. PIA also will hold workshops throughout the country, utilizing affiliated associations, FEO's regional offices, state energy offices, and regional and district offices of the Small Business Administration.

NUCLEAR STATUS REPORT . . . Two hundred and thirty-eight nuclear reactors in the United States were operable, being built, or planned in the United States as of June 30. The 60 operable units represent 8.1 percent of the total U.S. installed electrical generating capacity. Of the remainder, 93 were being built and 85 were still in the planning stages. During the first six months of this year, two nuclear generating units became operable, seven received construction permits, and seven others received site work authorizations. One nuclear generating unit was ordered and no plans were announced for additional units.

WHO KNOWS WHAT? . . . An Energy Atlas designed to answer who knows what about energy in Washington and throughout the country is being published by Fraser/Ruder & Finn. The Atlas carries a description of key energy units and individuals in executive departments, independent agencies and legislative committees, non-governmental groups interested in energy, and energy-oriented publications. Names, addresses, room numbers and phone numbers of energy contacts in each office are listed. There is an explanation of the programs, activities, responsibilities, and jurisdictional reach of each office. The book covers more than 50 federal agencies; Congressional committees and subcommittees which deal with energy legislation; state energy-related agencies; legislative organizations and city energy offices; federal, regional, and national non-governmental organizations at the state and regional level, and 600 energy publications, periodicals, guidebooks and directories.

SUPERBATTERY? . . . A $2.5 million contract for developing a superbattery that could be used by the nation's electric utilities for bulk-energy storage has been awarded to the General Electric Research and Development Center. The 32-month effort is being financed by the Electric Power Research Institute (EPRI), the research arm of the nation's electric utility industry, and will complement a parallel GE energy-storage program begun several years ago. The program's objective: to develop a rechargeable sodium-sulfur storage battery that potentially offers five times more storage capacity per pound than a standard lead-acid battery.

LOWER TEMPERATURES . . . The Nuclear Regulatory Commission staff has ordered changes in operating temperature limits at 21 nuclear power plants to assure compliance with criteria for backup cooling systems. The changes reduce the amount of heat which can be generated in the fuel rods, but are expected to affect the amount of power generated at only one plant—Yankee-Rowe, Mass.—about 2 percent. Westinghouse Electric Corp., the manufacturer of the 21 reactors, had informed the NRC staff that new information developed during its continuing audit program indicated that water temperature in the upper part of the pressure vessel was higher than previously assumed.

SOLAR ELECTRIC . . . Scientists made the first significant production of electric power from a solar-driven turbogenerator during a July demonstration at ERDA's Sandia Laboratories in Albuquerque. The new unit is also designed to use waste heat from the process to heat and cool the laboratory building. The facility will test, under operating conditions, a solar electric system capable of providing both electrical power and heat to shopping centers and small factories. The $21 million facility will test solar boilers and other components to be used in a 10-megawatt pilot plant that will generate electricity for use in a utility system. Selection of a site and of a utility partner for this "central receiver" pilot plant is expected this year, and construction is scheduled to start in 1978.

Environmental Cleanup: How Much $ Is Enough?

SECRETARY'S ADVISORY COUNCIL STRESSES IMPORTANCE OF COST/BENEFIT ANALYSIS DATA

Environmental protection, like everything else, eventually boils down to its impact on the bottom line.

Just how much protection is enough?

When does the economic cost outweigh the aesthetic and social benefit?

These questions are being asked with increasing frequency in the highest councils of government.

Particular emphasis was placed on the need for cost-benefit analysis in environmental protection regulation at the recent meeting of Secretary of Commerce Elliot L. Richardson's Advisory Council, composed of leaders of industry, labor, education and consumer groups.

The need for a cost-benefit approach to environmental regulation gained special stress because of an estimate, made by the Council on Environmental Quality, that environmental protection expenditures by the U.S. would total more than $468 billion, or nearly half a trillion dollars, in the period from 1975 through 1984, assuming no new legislation is passed.

Richardson pointed out that the estimated cost of environmental protection outlays is "but a part of the overall cost of regulation. There are also very considerable costs in terms of effects on energy dependence and unemployment.

"The pressures of continued industrial development and the associated increase in the complexity of our social, economic, and enviromental system will result in increased pressures for regulatory intervention as society seeks to better understand the consequences of its actions and, prevent those which may be undesirable.

"Together, these considerations imply unavoidable issues of choice among costs and benefits, among prices, degrees of health, safety, and environmental protection, among competing values and constituencies.

"Given the nature of these choices, the fundamental interests involved and the uncertainties associated with their evaluation, it is unavoidable that they work their way to a high place on the national political agenda."

Richardson expressed the hope that future discussion of this subject would be less conflict-laden. Much of the conflict, he said, has "derived from the development of regulatory policy through a process which has been insufficiently informed."

"As a society," he observed, "we have often been unclear about our objectives, and we have typically been inattentive to the relationships among them. We have been uncertain as to risks and benefits, and often downright ignorant of associated costs. And we have confused issues of fact with conflicts among values."

Richard G. Darman, Assistant Secretary of Commerce for Policy, pointed out that outlays to achieve environmental objectives through 1984 do not include an estimated $25 to $30 billion in capital costs associated with occupational health and safety for that period, or operating and maintenance costs of employee protection.

"Business, consumer, and government expenditures to achieve environmental safety and health objectives in 1972 were approximately $22 billion," he said. "In 1973 the figure had risen to $25.5 billion. The trend is clearly up."

Added costs

Darman pointed out that the burden of pollution abatement was particularly heavy for certain industries. For example, he said, electric utilities spent $6.5 billion for pollution abatement in the period 1967 to 1975, petroleum more than $4.5 billion, chemicals and paper, $2.5 billion each, and iron and steel and non-ferrous metals, more than $2 billion each.

Darman pointed to proposals for legislation still pending in Congress, including the Clean Air Act amendments, the Federal Water Pollution Control Act amendments, and proposals for a systematic and comprehensive review of all Federal Government regulatory activities. While many persons look upon these proposals as threats, he said, "in the sense we look at it, they are viewed as opportunities.

"There is a wide range of activity going on throughout the government," he said, "to attempt to reduce the paperwork burden which is in some ways the issue most freqeuntly alluded to by troubled constituents, citizens in general, and business executives."

Significant provisions of the Clean Air Act, as recently discussed in Congress, he said, would increase capital and operating costs of various industries. And yet, he added, "there are really no reliable estimates of these costs. The fact is that we make such far-reaching legislative and regulatory policy decisions without an understanding of the cost."

Discussing the steel industry, Darman said that compliance with the best practical technology now available for certain water requirements would entail operating costs of $2 per pound for removal of 96 percent of the contaminants and capital costs of $8 per pound of pollutant removed. An additional 3.6 percent removal of contaminants, which could be achieved under the best available technology, provided for in the 1983 requirements of the law, would move the operating costs to $29 per pound and the capital costs to $118 per pound of pollutants removed, he said.

John T. Smith II, General Counsel of the Commerce Department, commented that major environmental legislation was passed at a time "when the nation and the Congress were moved by great optimism about the capacity of the country to accomplish anything it wanted.

"We had recently put a man on the moon," he pointed out. "(The legislative acts) were passed prior to the time of the energy crisis of 1973 and the recession which we have all recently been through. As a consequence, they look more like optimism than hard-headed realization of the need to look at benefits in line with costs."

Talk about cost-benefits in environ-

mental regulation, he said, is to some persons a kind of code word for resisting environmental legislation.

"It's a shame, I think," he added, "that the debate on this subject has reached that polemical a level, and I think we should move from polemics to serious consideration of costs and benefits."

Donald M. D. Thurber, President, Public Relations Counselors, Inc., Detroit, said "one of the stumbling blocks in the process of confronting the American people with the necessity of choice in this area is the current ignorance that any choice is involved.

"I think there is a widespread feeling," he commented, "that we can have all this and heaven too. The possibility of choice is only just beginning, I think, to dawn on the public consciousness."

Incremental costs

Carl Horn, Jr., Chairman of the Board of Duke Power Co., Charlotte, N.C., said that until benefits are weighed against cost, "we are going to continue to have overkill and the extremely high incremental cost of achieving that last two or three percent of air and water purity quality . . ."

"There has been an overreaction to protection of the environment," he added, "and a failure to consider the economic costs against benefits, and a failure to face up to the very serious energy shortage, which is already upon us, although the average citizen has not felt it yet.

"I do not mean to imply," Horn replied, "that all agencies are bad. I am complaining about the overzealousness of some of their regulations."

Dr. Phillip Areeda, Professor of Law at Harvard University, said there is nothing new about cost-benefit analysis. From the beginning of time, he suggested, there has been the notion of looking at the pluses and minuses and trying to reach sensible conclusions.

He said the fact is that "proponents of environmental control, who have seen generations go by in which nothing was done, just don't trust anybody, and they see the special interests having a field day" under any cost-benefit approach to environmental regulation.

The nation will continue to be in a bind, he said, until progress can be made in doing two things—getting some consensus on the measurement of benefits and what benefits are relevant; and establishing "some more general sense of trust that the process will work to reach intelligent conclusions."

J. Irwin Miller, Chairman of the Board of Cummins Engine Co., Columbus, Ind., said he would not want to operate in an unregulated world, but he certainly would like to improve it a little. He suggested that a major step would be an adequate data base, so that information could be provided on the interactions and side effects of any given act.

Sol M. Linowitz, Coudert Bros., Washington, D.C., questioned whether the time had not arrived to reexamine the whole concept of the independence of regulatory agencies, and "where we need to make sure that those who undertake to regulate us are willing to be responsive to the regulatory pressures, i.e., the people, and therefore take into account everything that ought to be weighed before promulgating regulations.

The Rev. Jesse L. Jackson, Executive Director, Operation PUSH, Chicago, recommended that each major industry set up a council of industry, labor, and bona fide consumer representatives so that each "has a vested interest in maximum survival." He said: "This atmosphere of lack of care and becoming technical and legal when people should become spiritual and trustworthy has created a complete breakdown that makes arriving at a rational conclusion almost impossible."

Finally, Richardson suggested that one answer to the regulatory problem might be greater precision in legislative drafting in order to define the specific benefits that the legislation is seeking, coupled with greater reliance on Executive Branch implementation.

New Directory Lists Texas Manufacturers

The *1976 Directory of Texas Manufacturers* from the University of Texas Bureau of Business Research can be used both as a marketing tool and a research tool. The 954-page, two-volume publication lists some 13,600 manufacturing plants, up by more than 420 over last year. There are also more product listings.

Volume I lists Texas manufacturing plants alphabetically, geographically and by parent company. Included in the detailed listing are the firm's name, address and telephone number; name and title of principal officer, partners, owner or manager; and a brief product description.

Volume II lists Texas-manufactured products by categories (Standard Industrial Classification) and adds an alphabetical index of products.

The directory defines markets by identifying where potential buyers and sellers are. Used as a research tool, it can alert cities to the movement of industries or can be used by manpower and training placement agencies in assessing potential employment opportunities in a given locale.

The directory sells for $30 per set, plus $1.50 sales tax, and may be obtained from the Bureau of Business Research, The University of Texas, Austin, Tex. 78712 (512-471-3151).

Business Courses Offered By University of Maryland

The University of Maryland University College in conjunction with the American Management Associations is offering several courses leading to a CEU Certificate Program in Business and Management.

Upcoming courses include:

Transactional Analysis for Managers, four sessions beginning Oct. 26;

How To Be A Successful Product Manager, seven sessions beginning Nov. 2;

Computer Management Information Systems, five sessions beginning Nov. 6;

Computer Basic Systems And Procedures, five sessions beginning Nov. 6;

Management By Objectives, four sessions beginning Nov. 8; and

Getting Results With Time Management, four sessions beginning Nov. 30.

The Management By Objectives course is held at the Baltimore campus, and the others are at the Center of Adult Education at the College Park campus outside Washington, D.C.

For further information, contact Registration Clerk, Conferences and Institutes Division, University of Maryland University College, Center of Adult Education, College Park, Md. 20742, or telephone David Butcher or Sally Grieb at 301-454-5241.

Philadelphia To Study White Collar Crime

Extortion! Fraud! Bribery! Embezzlement!

All these and more will be on the agenda when Commerce's Philadelphia District Office hosts an all-day meeting October 27 on ways that management can fight white collar crime.

The "Institute on White Collar Crime," which is also being sponsored by the Citizens Crime Commission of Philadelphia and the Greater Philadelphia Chamber of Commerce, will be held at the City Line Inn.

After the opening talks which will outline the problem, attendees will spend the balance of the day—except for a closing panel discussion—at workgroup sessions of their choice on extortion/bribery; computer fraud; embezzlement/pilferage or credit card/check fraud.

The workgroups, which will offer opportunities for exchange of information and ideas, will be led by representatives from the FBI, the Internal Revenue Service, the U.S. Attorney's Office, the Philadelphia Attorney's Office and the U.S. Department of Commerce.

For reservations or information, contact the Citizens Crime Commission of Philadelphia, 1700 Walnut St., Suite 100, Philadelphia, Pa. 19103 (215-546-0800).

SHARING SUCCESSFUL ENERGY-SAVING SCHEMES CATCHES ON IN MIDWEST

Spread the word!

One of the best ways to improve the nation's energy conservation posture is for firms which have developed successful energy-saving techniques to share the knowledge with ones who are still searching for solutions. But how to do it has sometimes proven a problem.

Commerce's Office of Energy Programs is testing a new method of sharing successful activities — Energy Efficiency Sharing (EES)—which has drawn enthusiastic responses from firms in two midwestern states.

The plan is simplicity itself: Commerce's local representatives act as a catalyst in persuading a major local firm with a successful energy-saving program to invite smaller firms in the area in for a half-day show-and-tell session in their plant. The small companies learn from the large—and vice versa.

Field testing

The EES concept has been undergoing field-testing since last July. Seven workshops have been held in Iowa and Michigan. In all, 78 companies were represented at the seven EES workshops, and all were judged successful by the participants.

DES MOINES: With the approval of the AMF corporate headquarters, the appropriate management officials of their Lawn and Garden Division agreed to host a half-day EES workshop. The local Commerce Department field office director, Jesse Durden, asked the Governor's Energy Policy Council to act as co-sponsor of the session. Invitations went out to all identifiable Des Moines companies engaged, like AMF, in metal fabrication. Eight companies, represented by ten individuals, attended. The program included presentations by the Iowa Power Company and Northern Natural Gas, as well as the main presentation by the plant manager of AMF's Lawn & Garden Division. There was a conducted tour of the plant, followed by an informal discussion period involving the industrial participants and representatives of Iowa State University, the Des Moines Chamber of Commerce, and the U.S. Department of Commerce. Follow-up phone calls to the participants brought a range of reactions from enthusiastic to skeptical, with the pluses outnumbering minuses by 4 to 1. Commerce Department energy conservation material was made available. Perhaps the most significant benefit to come out of the meeting was the spontaneous suggestion by several of the participants that the group meet again on an informal basis to exchange energy management information.

GRAND RAPIDS: Based on the relative absence of give-and-take discussion at the Des Moines meeting, Tom Maguire of the Grand Rapids, Michigan, satellite field office persuaded the Grand Rapids Chamber of Commerce that invitations should state that only a limited number of participants were expected. The aim was to encourage open interaction by using a round-table setting rather than a lecture hall. A total of twenty individuals attended; ten companies were represented, as was the local university, the Chamber and the Commerce Department. Host was Meijer Thrifty Acres, a leading chain of markets in western Michigan. The meeting was devoted to energy management in storage and warehousing. The meeting convened at 9 a.m., and less than 15 minutes into the presentation the other participants began asking questions and volunteering suggestions. The technical information exchange went on vigorously throughout the meeting, the plant tour and the Meijer-hosted luncheon. Maguire's estimate of the meeting's success: "On a scale of 1 to 10, I'd give it a 9."

WATERLOO: Based on the AMF experience, the Commerce District Office and the Iowa Energy Policy Council had no difficulty persuading Iowa's largest employer, the John Deere Company, to act as host to appropriate neighboring firms. The Deere Company, a leader in energy conservation, had a most successful meeting at their Tractor Works in Waterloo, and as a result scheduled further EES workshops in their plants in Ottumwa and Dubuque as well. At the Waterloo meeting, Deere decided to hold a lecture-type program featuring company engineers. The invitation, again co-signed by the head of the Iowa Energy Policy Council and the Commerce District Office director, brought in a total of 36 participants. As with the first Iowa meeting, guest companies were in metal fabrication or closely associated businesses. The participating companies ranged in size from 500 employees to less than 20.

OTTUMWA: The second EES workshop hosted by the John Deere Company turned out to be even more successful than the first, in Waterloo. Twenty-eight people from 14 companies participated with representatives of government agencies and local universities and six John Deere energy specialists in an informative session that featured vigorous give-and-take and a plant tour that even inspected heat recovery units on the roof. In addition to "situation report" from the electric utility and the gas company, Deere representatives presented the energy conservation story in separate disciplines such as heat treating, heat recovery and insulation. Reaction to the program was enthusiastic, with one company volunteering ". . . this will give us an opportunity to start something in energy management."

GRAND RAPIDS No. 2: With only a week's lead time between mailing invitations and holding the workshop, the second Grand Rapids meeting still managed to attract representatives from eight firms in the metal fabrication business to the plant of Grand Rapids' largest employer, Steelcase Corporation, an office furniture manufacturer. Steelcase employs 3,000 workers and operates six plants with 4.5 million square feet of space. The majority of the presentation was handled by the firm's plant and maintenance engineer, who described the energy saving procedures instituted by Steelcase. Those savings were detailed, and documented by printed material that was distributed.

DUBUQUE: John Deere's third EES workshop attracted the largest turnout of all: 46 people, with 18 companies represented. The V-shaped long table used at the meeting in Ottumwa was successfully employed here, promoting informal discussion following the individual presentations.

ZEELAND: The Herman Miller furniture company hosted another of Western Michigan's small groups of energy-interested companies, eight in all. In a spirited round-table discussion that began ten minutes after the Miller presentation started, the guest companies laid out their energy problems and absorbed the host firm's, and each other's, suggestions for solving them.

Seeking host firms

As a result of these successful field tests all 43 Commerce Department Field Offices and 20 satellite offices will be asked by John P. Gleason, Jr., Commerce's Deputy Assistant Secretary for Field Operations, to seek out host companies and co-sponsors for EES workshops in their territories. State energy offices and local chambers of commerce play an integral role in holding successful workshops.

The EES program will be supported by corporations represented on the National Industrial Energy Council (NIEC), an advisory body to the Secretary of Commerce. Dr. Clifford M. Hardin, Vice Chairman of the Ralston-Purina Company and former Secretary of Agriculture, who chairs NIEC's Business Awareness Subcouncil, reported "As a result of tests which have taken place, this program is working, and working better than some of us even dared to hope."

Industrial firms and Chambers of Commerce interested in Energy Efficiency Sharing workshops are invited to contact the nearest District Office of the U.S. Department of Commerce (see list inside back cover).

DEVELOPING A VOLUNTARY PRODUCT STANDARD— A PAINSTAKING PROCESS

The development of a Voluntary Product Standard is a painstaking business. You might even say tedious, were it not for the importance that Commerce's National Bureau of Standards attaches to consulting — many times — everyone who might even be remotely concerned with the result.

Witness the five-year process that recently resulted in a standard establishing nationally-recognized safety requirements for toys intended for use by children up to 14 years of age.

The standard, requested in 1971 by the Toy Manufacturers of America (TMA), the industry's trade association, allows producers and distributors to identify toys that conform to the standard through appropriate marking, labeling and advertising. This lets consumers know which toys comply with the standard and gives them assurance that the toy should be safe during normal use or reasonably forseeable abuse. Such abuse would include instances of children taking toys apart, dropping or throwing them, or using them for purposes other than intended.

Voluntary Product Standards are designed to establish nationally-accepted requirements for particular products. The proposed standard must have a broad public effect, must reflect group rather than individual interests, must not duplicate a published standard, and cannot be effectively developed by a private national standards group. TMA's request met these conditions.

NBS acts as an unbiased coordinator in the development of a Voluntary Product Standard, providing editorial assistance in preparation of the standard, supplying technical review to assure the soundness of the standard, resolving points of disagreement, determining compliance with Voluntary Product Standard procedures, and publishing the standard when a consensus is reached.

Toy safety requirements

TMA asked the Arthur D. Little Company to develop the initial draft of a standard to establish nationally recognized safety requirements for toys. The Bureau of Standards then sent the draft to interested producers, distributors and consumers for their comments. NBS received 227 replies: a total of 121 respondents found the proposed standard satisfactory; 75 found it unsatisfactory, and 31 offered no formal comment.

On the basis of these responses, the draft standard was revised and sent to a 15-member Standard Review Committee composed of representatives of five toy producers, five toy distributors, and five consumer groups. There it was reviewed again, at which time the committee members recommended that it be circulated for acceptance to producers, distributors and consumers.

A total of 52 subsequent comments were reviewed by the Standard Review Committee and several editorial changes were made. This revised document was approved by Ernest Ambler, Acting Director of the National Bureau of Standards, on September 16, and became a Voluntary Product Standard upon his signature.

The revised draft of the standard was submitted to the American National Standards Institute, where it will become an ANSI standard upon approval by the Institute.

Several test methods developed by the Consumer Product Safety Commission were incorporated into the standard. CPSC may, if it wishes, adopt the NBS-processed Voluntary Product Standard for toys as a mandatory CPSC standard.

The standard contains requirements for material quality, flammability, toxicology, packaging film, strings and elastics, electrical or thermal energy, impulsive noise, edges, hazardous points, and projections.

It also contains requirements for wheels, tires and axles; folding mechanisms and hinges; holes, clearances and protection of mechanisms; stability of ride-on toys and seats; overload requirements for ride-on toys and seats; tipping of stationary floor toys; confined spaces and small objects; simulated protective devices such as helmets, hats and goggles; projectiles, and labeling, literature and marking.

Test proeedures

Also covered are inspection and test procedures to be used in determining the conformance of toys to the requirements.

Several articles are not covered by the standard however, including: bicycles; kites; sling shots and sharp-pointed darts; crayons, paints, chalks and other similar art materials; playground equipment; B-B guns; hobby and craft items and model kits in which the finished item is not primarily of play value; sporting goods, camping and athletic equipment, musical instruments and furniture, and powered models of aircraft, rockets, boats and land vehicles.

Printed copies of the standard, designated PS 72-76, will be available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, in three to four months. In the meantime, recommended standard TS 215b is available free of charge from the Standards Development Services Section, National Bureau of Standards, Washington, D.C. 20234.

ERDA SEEKS PARTNER IN DESIGNING, TESTING COMMUNITY ENERGY GRID

Businessmen, state and local governments, electric utilities, banks and real estate developers are among those being invited to join the Energy Research Development Administration (ERDA) in designing, building and evaluating a community energy system.

The system, known as a grid-connected Integrated Community Energy System (ICES), is to provide the most energy-efficient utility services for a total community or building complex. It would generate electricity and use the waste heat from the power plant for such purposes as domestic hot water and space heating and cooling. In addition, municipal solid waste, and trash, may be burned to supplement fossil fuel.

Single service utilities, those that generate only electricity or that produce only steam heat for space heating, for example, do not have the flexibility to operate at highest system efficiency. Electric power plants, for instance, convert about 30 percent of the energy in the fuel into electricity; and 70 percent or more of the fuel energy is discharged as waste heat to air and water.

In general, the energy produced by the ICES plant would be used by buildings and commercial establishments in the immediate vicinity. At times when the ICES plant produces more electricity than is needed in the community it serves, excess power would be fed into a utility network for consumption in other areas.

The proposal selected to demonstrate the ICES concept should show willingness on the part of a local power company to participate in the project by allowing grid connection; should demonstrate adequate secured financing for the community or development complex to be served by the ICES; and should possess, or have access to, adequate technical, planning, financial and management expertise.

The community or building complex to be served by the ICES should be in an early planning stage to accommodate full integration of the system. It should provide a mixture of buildings and types of building occupants to ensure continuous energy demand at all seasons of the year. A site should be available within the community for the ICES plant, and there should be space for pathways to accommodate the distribution system.

Copies of a request for proposals to demonstrate the ICES concept may be obtained from Frank Herbaty, U.S. Energy Research and Development Admin., Chicago Operations Office, 9800 South Cass Ave., Argonne, Ill., 60439.

SIGNIFICANT CHANGES CALLED FOR IN NATION'S OCEAN, CLIMATE PLANS

An official body charged with evaluating the way the nation is dealing with its problems in the oceans and the atmosphere has called for a major revamping in many programs.

The National Advisory Committee for Oceans and Atmosphere, a 25-member group charged with reporting to the President and Congress annually on the state of U.S. marine and atmospheric programs, has advocated significant changes in the nation's energy, marine, weather and climate programs.

In a report transmitted to the White House by Secretary of Commerce Elliot L. Richardson, NACOA recommended refocusing federal atmospheric and oceanic planning and operational activities.

Major recommendations included:

—Creating a task force to formulate a comprehensive marine affairs policy and plan a continuing coordinating mechanism. NACOA stated that oceanic events are developing more rapidly than are plans to cope with them;

—Explore and develop offshore oil and gas resources consistent with environmental safety and the need for maintaining strategic reserves; and that the process be reconciled with an economic atmosphere suitable for development;

—Passage of pending legislation for a program of climate watch, forecasting and research under the coordination of the Secretary of Commerce;

—That the National Oceanic and Atmospheric Administration receive responsibility for coordinating and managing a coherent federal program of weather modification research and experimentation, and

—That federal funding for the National Sea Grant program be increased from $23 million to about $40 million per year over the next three to five years, and that its legislation be amended to free earmarked funds from matching criteria.

NACOA found "too much emphasis on haste" in energy research projects whose payoffs are distant in time, and not enough on near-term possibilities. It recommended the establishment in the Energy Research and Development Administration of a Directorate for Oversight of Energy Research (DOER) reporting technical advice on comparisons of alternatives directly to the Administrator.

The group also said that Environmental Protection Agency pollution research programs addressed to long-term basic knowledge needs were inadequate. It asked that longer term basic research receive more attention and that units be

TAKING ANOTHER LOOK—*The National Advisory Committee for Oceans and Atmosphere calls for significant changes in national policies affecting these areas.*

established in three agencies for this purpose: the National Institute of Environmental Health Sciences for human health and disease; the National Oceanic and Atmospheric Administration for the atmosphere and oceans; and the Department of the Interior for plant and animal life on land and inland waters, with the Council on Environmental Quality leading an interagency coordinating committee in the effort.

NACOA also called attention to "serious deficiencies" in diver-physiology-related research, and in the development of decompression tables, and recommended a $3.5 million program toward faster, safer decompression and better understanding of the effects of undersea work.

The panel also recommended that the Federal Aviation Administration and the National Weather Service review aviation weather needs and capabilities in the light of technological advance, and that rapid weather hazard warnings be available to all pilots in flight.

The Secretary of Commerce is required to respond to NACOA's recommendations. His comments, which reflect the views of all government agencies involved, accompany the NACOA document to the White House and Capitol Hill.

Secretary Richardson transmitted general agreement with a great many of NACOA's recommendations, but he and other officials took issues with others.

Stating that the United States is "setting the pace" for oceans policies, the Secretary sees the problem as the "lack of a comprehensive approach to setting ocean policies." He termed "the more traditional modes of cooperation between the Executive and the Congress" preferable to NACOA's suggested task force; and pointed out that NACOA itself can, under its charter, undertake long-term advisory planning efforts.

The recommendation concerning offshore oil and gas development also drew comment from Interior Secretary Thomas Kleppe, and EPA Administrator Russell Train.

Kleppe said it was urgent for the government to encourage industry to get on with exploratory drilling at a maximum responsible rate. He also expressed concern with NACOA's stress on maintaining strategic reserves as susceptible to misintrepretation as endorsing government oil and gas exploration—which, he said, is not the case.

EPA Administrator Russell Train, concurring "generally" with Secretary Kleppe, voiced his concern that, present knowledge of marine ecological processes and present technology is of doubtful adequacy to establish or protect oceanic environmental norms. He said offshore energy development should proceed only with full recognition of the need for obtaining scientific information and technology necessary to assure environmentally sound decisions.

Concurring in the need to develop a better understanding of climate dynamics, Secretary Richardson supported recommendations for a National Climate Program as well as for the World Meteorological Organization climatic efforts. In the field of weather modification, the Secretary agreed on the need for more basic research and attention to its environmental, economic and social impacts.

EPA Administrator Train, commenting on NACOA's suggestions for improvement of his agency's research programs,

said that his Science Advisory Board, whose members are all outside EPA, will study the application of ecological research to the EPA mission.

Commenting on the report's expressed concerns over the institutional aspects of long-range research on environmental problems, Secretary Richardson said passage of the National Science, Engineering, Technology Policy and Priority Acts should produce a review of all the science and technology coordinating mechanisms in the Federal Government.

NACOA's comments on weather and air safety were called "timely" by Secretary Richardson, who noted that the recommendations would require substantial new federal investments in manpower, communications and equipment, and would require careful budgetary review. He cited new efforts such as thunderstorm airport alert tests in the New York, Philadelphia and Washington, D.C. area, greater emphasis on weather education for pilots and air traffic control specialists, and an experimental program at the Kansas City Air Route Traffic Control Center to provide improved weather communications to pilots in flight.

A Report to the President and the Congress is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at $2 per copy.

Travel Industry Task Force Gets $1 Million Seed Money

A new government/industry partnership to promote tourism by Americans within the United States has been formed with the establishment of a travel industry Task Force. The federal government will provide up to $1 million in seed money during fiscal year 1977 for this program.

The Task Force will be coordinated by Discover America Travel Organizations, Inc., the national nonprofit organization of the U.S. travel industry. It will carry out the planning and implementation of a national program following consultations with national travel associations and solicitation of creative proposals from advertising agencies.

The idea for the Task Force grew out of a meeting of some 30 chief executive officers of leading U.S. travel firms with Secretary of Commerce Elliot L. Richardson and Assistant Secretary of Commerce for Tourism Creighton Holden in early October. The executives suggested the partnership as a means of increasing travel within the U.S. as part of a national economic objective.

The Task Force will initiate the development of cooperative efforts in travel promotion in the areas of economic growth, education, ecology and energy efficient travel. Task Force members will meet with key travel industry elements, including travel trade associations and state, regional and local travel officials, in reviewing program recommendations for industry participation.

The money, which is two-thirds of the United States Travel Service's appropriation for domestic travel promotion, will be used only for activities which do not compete with those of any state, city or private agency.

In addressing the travel executives at the Washington, D.C., meeting, Secretary Richardson cited the beneficial impact of tourism on the economy, especially with respect to creating new and meaningful jobs in the private sector. Last year, an estimated four million jobs were supported by tourism, with a total payroll of over $20 billion.

U.S. ENERGY REPORT SHOWS MIXED PICTURE

Americans are using more oil this year than last, but are still using far less than predicted prior to the embargo. . . . The United States is becoming more dependent on foreign oil imports, but domestic production is slowly making a comeback. . . . Gasoline consumption is higher than last year, but new automobiles are becoming more energy efficient.

These are some of the findings from a Federal Energy Office mid-year report on "The Energy Situation."

U.S. crude oil production dropped in March to its lowest point in more than a decade (8.1 million barrels per day) the report states, but the situation will reverse itself in late 1977 when Alaskan oil begins flowing to the lower 48 states. The decline in domestic crude oil production has slowed, but with higher prices more new well footage has been drilled this year than in any of the last three years.

The improving economic situation has increased demand for oil imports. The Arab OPEC share of oil imports has increased to 37 percent, up from 22 percent before the oil embargo of 1973. Total OPEC share of imports now is 82 percent, compared with 70 percent in pre-embargo days.

Domestic oil consumption declined in 1974 due largely to the slowdown in the economy, but also due to conservation efforts. As the economy turned upward in early 1976, demand for petroleum products increased by about 4 percent through the first half of the year.

Gasoline demand rose 4.8 percent in that period, but U.S. refinery capacity appears sufficient to meet increasing demands for gasoline and other products.

The report notes a positive aspect to the gasoline picture, with a trend toward producing more efficient automobiles—fuel efficiency increased by 12 percent from model year 1974 to 1975, and the increase could be as high as 13 percent for model year 1976.

FEO Administrator Frank Zarb notes, "Overall we've taken some positive steps toward developing a comprehensive energy policy for the nation, but obviously more must be done." He noted such positive steps as passage of the Energy Policy and Conservation Act, development of strategic reserves, fuel efficiency standards for automobiles, phased-out controls on oil, continuation of a coal conversion program, Naval Petroleum Reserves legislation, and removal of almost half of petroleum products from price and allocation controls.

The report also concludes that:

- Natural gas production will continue to decline in the next few years but could increase to about 22 trillion cubic feet (Tcf) in 1985 if prices are deregulated (1975 production was 20.1 Tcf). Under current FPC regulation, natural gas production could decline to about 18 Tcf in 1985, although recently announced FPC price of $1.42 per thousand cubic feet (Mcf) could increase production to over 21 Tcf in 1985;
- Production of electricity, which leveled off in 1973, began to grow again in 1975 at the rate of about 2 percent;
- Nuclear powerplants on line are expected to number 170 by 1985, compared with projections of 202 last year and 209 in 1974. If this schedule does not slip, the Administration's goal of 26 percent of total electricity production from nuclear energy by 1985 can be reached;
- Coal production has remained about level during the past five years, but should increase by about 35 million tons to 675 million ton production capacity in 1976.

New Book Assists Data Base Managers

Managers considering data base implementations will find helpful information in *Data Base Directions—The Next Steps*, a publication of Commerce's National Bureau of Standards.

The 158-page book includes reports on the auditor's role in data base systems; technical development impacting decisions; interaction between data base and the growing body of laws affecting data and its management; standards and forseeable activity; and impact of data base systems on the user organization.

Copies of the book, NBS Special Publication 451, may be ordered at $2.40 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Specify SD Catalog Number C13.10:451.

Projects Seek Industrial Processses Most Suitable For Using Solar Energy

Solar energy applications are expanding into the light industrial field.

Formerly restricted to heating and cooling homes and small buildings, solar technology applications are now being sought for drying lumber, onions, textiles, soybeans, alfalfa, raisins and prunes under Federal Government contracts totaling over $1 million with six different organizations.

The Energy Research and Development Administration (ERDA) is financing the following research projects:

Lockheed Missiles and Space Co. of Huntsville, Ala., $71,500, lumber drying;

Trident Engineering Assoc. of Annapolis, Md, $226,000, onion drying;

Honeywell, Inc., of Minneapolis, $146,-500, textile fabric drying;

Teledyne-Brown Engineering Co. of Huntsville, Ala., $286,000, soybean drying;

Midwest Research Institute of Kansas City, Mo., $64,200, alfalfa drying, and

California Polytechnic State University of San Luis Obispo, $269,000, raisin and prune drying.

The six were selected from 24 that submitted proposals in response to an ERDA Solar Energy Division request.

Work under this phase of the program is expected to be completed next spring. Plans then call for two or three of the designs to be selected for construction and operation.

The ERDA Solar Industrial Process Heat Program is trying to determine which industrial processes are best suited to the use of solar technology as a replacement for fossil fuels.

Workers And Jobs Subject Of Booklet

A Bicentennial chartbook for "people who don't like statistics" has been published by the U.S. Department of Labor's Bureau of Labor Statistics. *U.S. Workers and Their Jobs: The Changing Picture* shows the movements of wages, prices, productivity, employment and union membership over the years. The booklet features non-technical language and colorful charts.

Single copies of the chartbook (BLS Bulletin 1919, GPO stock number 029-001-01917-3) are for sale at 60 cents each at regional offices of the Bureau of Labor Statistics, at Government Printing Office bookstores, and from the Superintendent of Documents (minimum mail order is $1).

Calendar Of Business Events

Oct. 26-28—Andover, Mass.—Business & Investment Opportunities in Computer Graphics, Andover Inn. For information, Institute for Graphic Communication, Inc., 375 Commonwealth Ave., Boston, Mass. 02115 (617-267-9425).

Oct. 26-28—Chicago — North American Industrial Robot Conference & Exposition, Hyatt Regency O'Hare Hotel. For information, Robot Institute of America, P.O. Box 930, Dearborn, Mich. 48128. (313-271-1500 ext. 401).

Oct. 26-28 — Chicago — Assemblex III, Holiday Inn O'Hare/Kennedy. For information, Society of Manufacturing Engineers, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500).

Oct. 27-29—Rosslyn, Va.—Transactional Analysis in Management II. For information, Betsy Girton, Continuing Management Education — SSCE, Georgetown U., Washington, D.C. 20057 (703-525-6300).

Oct. 27-29—St. Louis—Midwest Regional Operations & Automation Workshop, Chase Park Plaza Hotel. For information, American Bankers Assn., 1120 Connecticut Ave. NW., Washington, D.C. 20036 (202-467-4332).

Oct. 27-29—Chicago — Wharton School seminar on fundamentals of finance and accounting for the non-financial executive. Contact: Wharton Registrar, New York Conference Mgt. Ctr., 360 Lexington Ave., N.Y. 10017 (212-953-7266).

Oct. 28—Atlanta—How To Plan, For Apparel Manufacturers, Peachtree Plaza Hotel. Contact: American Apparel Mfrs. Assn., 1611 N. Kent St., Suite 800, Arlington, Va. 22209 (703-524-1864).

Oct. 28-29—Atlanta—Government assistance to small business seminar, Marriott Motor Hotel. Contact: GATS-B Conference, 1401 Peachtree St., N.E., Room 300, Atlanta 30309 (404-526-3608).

Oct. 28-29—Houston—Energy Conservation in Industrial Plants, Warwick Hotel. Sponsor: New York Univ. For information, Heidi Kaplan, New York Conference Mgt. Ctr., see address above.

Nov. 2-4—Atlanta—Workshops on metrics in manufacturing, Sheraton-Biltmore Hotel. Contact: Mark J. Stratton, SME, 20501 Ford Rd., P.O.B. 930, Dearborn, Mich. 48128 (313-271,1500, x411).

Nov. 2-4—Rosslyn, Va.—Employee motivation seminar, RCA Bldg. Contact Betsy Girton, address above.

Nov. 3-5—Gaithersburg, Md.—Mechnical failures prevention through engineering design, National Bureau of Standards. Contact: Harry Burnett, Rm. B260, Materials Bldg., NBS, Washington, D.C. 20234 (301-921-3813).

Nov. 4-5—Newport Beach, Calif.—Marketing technical products conference, South Coast Plaza Hotel. Contact AIAA/TMSA Conf., 444 West Ocean Blvd., Long Beach 90802 (213-437-7465).

Nov. 5—Portland, Ore.—Business opportunity for federal procurement conf., Sheraton-Portland Hotel. Contact: Sharon Rowland, c/o Sen. Bob Packwood, Box 3621, Portland 97208 (503-233-4471).

Nov. 7-10—Jacksonville—Area Industrial Development Research Council Conference, Amelia Island Plantation. Contact: IDRC in Atlanta (404-458-6026).

Nov. 8-9—Dallas—Current developments in environmental regulation and litigation, Dallas Hilton Inn. Sponsored by SMU Law School and Practising Law Institute (212-765-5700).

Nov. 8-11—New York—Seminar on Reinforced Plastics sponsored by NYU's School of Continuing Education. Contact: N.Y. Conf. Management Center, 360 Lexington Ave., N.Y. 10017 (212-953-7262).

Nov. 8-12 — Chicago — Asset Security Course sponsored by Amer. Soc. for Industrial Security, Lake Shore Club. Contact: ASIS, 2000 K St., NW., Washington, D.C. 20006 (202-331-7887).

Nov. 8-12—San Diego — Computer performance evaluation, sponsored by National Bureau of Standards. Contact: Dick Dunlavey, Rm. A265, Technology Bldg., NBS, Washington, D.C. 20234 (301-921-3485).

Nov. 8-12—Tucson—Reliability Engineering & Management Inst., Ramada Inn. Contact: Dr. Charles R. Hausenbauer, Electrical Eng. Dept., Bldg. 14, U. of Arizona 85721 (602-884-2495, 3054 or 3901).

Nov. 9—Knoxville, Tenn.—Crimes Against Business Seminar, Broadway Baptist Church Fellowship Hall. Sponsors: Knoxville Chamber of Commerce and Memphis District Office. Contact: Memphis District Office.

International Commerce Report

'Office Abroad' Service Boon To U.S. Exporters

TRADE CENTER ROOMS BECOME TEMPORARY OFFICES FOR COMPANY OFFICIALS VISITING FOREIGN MARKETS

Need an office abroad for just a couple of days—to help in getting into an export market, or to interview prospective agents, or to follow through on several inquiries received about company products, or even to make some new contacts? Exactly that is now available, and the idea is catching on.

Since early summer, for $25 a day, "an office away from the office" has been offered to U.S. firms that come to the Commerce Department for assistance in doing business abroad. In its 11 U.S. Trade Centers around the world, the Commerce Department provides—for up to five days—such facilities as office space, desk, typewriter, phone, display rack, audio-visual equipment, help in obtaining interpreter services and, most important, identification of, and appointments with, leading prospects for customers and agents. For a representative whose firm has no foreign office in a given location, such assistance can mean the difference between business and no business.

This is how the Product Marketing Service, as it is called, works:

A firm is considered eligible for the service if its representative agrees to take along price lists, sample products, a visual display or audio-visual presentation; if the representative is a decision-maker in the company; and if its product clearly reflects a U.S. corporate identity and at least 50 percent of its component value is made in the United States.

U.S. Trade Centers are located in London, Paris, Tokyo, Milan, Cologne, Stockholm, Mexico City, Taipei, Singapore, Sydney, and Tehran. They have already "housed" 24 office-abroad visits during the few months of the service's operation, and another dozen are scheduled within the next few weeks.

Louis M. Lutostanski, president of Tri-Onics International Sales, Inc., Highland, Ill., recently returned from a business trip during which he had used "an office away from the office" in five European U.S. Trade Centers. He signed representation agreements in three and expects to conclude another soon. Reporting from the Stockholm Center where he spent only one day, he projected Scandinavian orders worth $100,000 in the next 12 months for his digital readout equipment. "The facilities and accommodations were excellent," he said.

At the Milan Center, where three firms have already "set up shop" and two more are scheduled for this month, Nobles Industries of St. Paul appointed three distributors during a two-day "occupancy." Nobles supplies floor and carpet maintenance equipment.

"We believe the Product Marketing

TOWARD MAXIMUM UTILIZATION—*U.S. Trade Center rooms are now being scheduled, when space is available, as day-to-day offices by individual American firms' representatives for brief business visits abroad. Photo above shows the Trade Center in Tokyo, which occupies the first two floors of a conveniently located building. Photo at right pictures a room inside the Center at Stockholm, in use by businessmen, with trade directories and other reference materials at hand.*

Service lends itself readily to the needs of individual firms as they endeavor to expand U.S. sales abroad," says Richard Garnitz, director of Commerce's Office of International Marketing. "The initial response has been salutary. As company executives—especially those of small and medium-sized firms—learn about the facilities available, the Trade Centers will be called upon more and more to provide this service, expanding their usefulness into every available hour."

Additional information on the Product Marketing Service is available from any Commerce District Office or from the Department's Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230; telephone, 202-377-5461. In applying for the service, a minimum of 60 days' lead time is desirable.

BOYCOTT REPORTING DIRECTIVE IMPLEMENTED; REGULATIONS EXTENDED

President Ford's directive to make public new reports from American businesses related to the Arab boycott of Israel is being implemented by the Commerce Department.

Reports of the receipt of boycott-related requests that are received by the reporting firm on or after Oct. 7 shall be made available to the public for inspection and copying in the Freedom of Information Record Inspection Facility, in Room 3100 at the Main Commerce Building in Washington, the department has announced.

Only business proprietary information such as the quantity, value, and type of goods, or the name of the consignee, the release of which could place reporting firms at a competitive disadvantage, will not be publicly available, when confidential treatment is requested by the reporting company.

The first boycott reports available for inspection were received in the Department Oct. 18. Firms reporting included 28 that identified themselves as freight forwarders, 22 as exporters and 6 as banks.

Boycott request reporting forms have been revised.

President Ford declared earlier this month that public disclosure of boycott-related requests will "strengthen existing policy against the Arab boycott of Israel without jeopardizing our vital interests in the Middle East."

Meanwhile, in a related development, the Commerce Department will continue to administer the nation's system of export controls under authority of the Trading with the Enemy Act of 1917, as provided in Executive Order 11940 which was signed by President Ford on Sept. 30.

The President's action extended the system of export controls authorized by the Export Administration Act of 1969, which expired Sept. 30.

This procedure was previously followed in 1972 and in 1974 when the Export Administration Act also expired.

Continuing in effect are the present Export Administration regulations, including export controls now in effect on the basis of national security, foreign policy and short supply, as well as the present boycott restrictions and reporting requirements.

Foreign Trade Leaders From U.S., Europe, Japan To Address Convention

More than 40 industry, banking, government and academic speakers from the U.S., Canada, Europe, Japan, Saudi Arabia, and Venezuela will be heard at the National Foreign Trade Council convention in New York Nov. 15-16.

The convention theme is "Private Enterprise in World Trade and Investment." Explaining it, the Council declared: "It seems to us extremely important and timely to focus upon private enterprise as the economic system upon which our own economy has been built and also its proven ability to generate and stabilize economic development in world economies. It is equally necessary to focus upon the accomplishments of multinational enterprises functioning within the framework of the private enterprise system."

This major meeting of the U.S. foreign trade community will be called to order by the Council Chairman, James M. Roche. Procter & Gamble executive Howard Morgens will deliver the keynote address. Speakers at the other major sessions at the Waldorf-Astoria Hotel are British Board of Trade President Edmund Dell, Saudi Arabian Ambassador Ali A. Alireza, and Ford Motor Co. President Lee A. Iacocca. Caltex Petroleum Corp. President W. E. Tucker will present the convention's Dollar Memorial Award to Reginald H. Jones, Board Chairman of General Electric Co.

"Perceptions of the Multinational Enterprise" will be explored by Paul H. Boeker, Deputy Assistant Secretary of State for Economic and Business Affairs; Klaus A. Sahlgren, executive director, United Nations Centre for Transnational Corporations, and Dr. Raymond Vernon, professor of international trade and investment, Harvard School of Business Administration.

Richard D. Hill, Board Chairman, First National Bank of Boston, will speak and Douglas A. Smith of the Industrial National Bank of Rhode Island who is President of the Bankers' Association for Foreign Trade, will moderate a discussion panel of U.S. and foreign bankers and business financial executives. Participants will include Ralph E. Bellville, Security Pacific National Bank; Thomas A. Casadevall, E. I. du Pont de Nemours & Co.; Lowell M. Dicke, Fluor Corp.; Robert C. Howard, First City National Bank of Houston; Beverly J. McGill, Royal Bank of Canada, and Hector P. Prud'Homme, Brown Brothers Harriman & Co.

An international business session will be chaired by Council President Robert M. Norris. Speakers will be Kristian H. Christiansen, General Electric; Gustavo Cisneros, President, Organization Diego Cisneros, Caracas; Tai Mizuki, President, C. Itoh & Co., Inc., and Fernand Spaak, head of the delegation of the Commission of the European Communities to the United States.

Speakers at a tax session include Donald C. Alexander, Commissioner of Internal Revenue; John D. Hosking, Ford Motor Co.; Gordon Nicholson, Arthur Andersen & Co., and Robert J. Patrick, Jr., Delaney & Patrick. Raymond A. Schroder, Exxon Corp., will chair the session.

An international personnel session will deal with the quality of work life, its concept, meaning and impact, and will be chaired by Herbert Hubben, vice president-management resources, Eaton Corp. Speakers include Ted Mills, director, National Quality of Work Center; Donald Scobel, Eaton Corp. and Cor Sprangers, Volvo of America Corp.

The impact of foreign exchange operations, country reserves and liquidity, and outlook will be examined at a session chaired by Harold van B. Cleveland of Citibank. Speakers will include B. V. Gestrin, Canadian Imperial Bank of Commerce; Fujio Matsumuro, Japanese Embassy; William S. Ryrie, British Embassy, and John D. Wilson, Chase Manhattan Bank.

Cyprus International Fair, 1977 Seeks American Participation

The Cyprus State Fairs Authority invites U.S. firms to participate in the second Cyprus International Fair, to be held in Nicosia, May 21-June 12, 1977. Both local and foreign exhibitors displayed a variety of products at the first event, held last year.

Applications are to be received no later than Oct. 31. Write: Cyprus State Fairs Authority, P.O. Box 3551, Nicosia; cable, KYPROFAIR; telex, 3344 KYPROFAIR; telephone, 48918.

Official Trade Briefs

This article is another in a series of reports that describes actions affecting world trade, as compiled by the Legislative and Tariff Policy Division of the International Economic Policy and Research Bureau's Office of International Trade Policy.

THE PRESIDENT

Import Relief: President Ford has issued a proclamation raising the duty on imported **sugar** from .625 cents per pound to 1.9875 cents per pound, which is the column 2 (statutory) rate. He has also issued a statement indicating his full support of the Senate Finance Committee's request for an "escape clause" investigation by the U.S. International Trade Commission (ITC) of the effects of imports on the domestic industry under section 201 of the Trade Act of 1974. The President stressed that the increased duty, which is only an interim measure intended to provide relief while the ITC investigation is under way, is necessary because of the depressed state of the sugar industry and that he will review the entire situation upon receipt of the Commission's report.

In addition, recent negotiations with the governments of the Republic of China and the Republic of Korea have resulted in assurances of moderated exports of **canned mushrooms** to the United States. These pledges follow a dramatic increase in imports of mushrooms since last May at which time the President accepted the ITC's finding of import injury to the industry and its recommendation of adjustment assistance for workers and firms. In addition, President Ford, through the Special Trade Representative, has requested the ITC to reopen the "escape clause" investigation regarding the effect of mushroom imports on domestic producers. The assurances on export levels will in no way prejudge or prejudice the pending ITC reinvestigation.

Meat Imports: On Oct. 9, the President issued a proclamation pursuant to his authority under the Meat Import Act, setting a quota for U.S. meat imports for 1976 at 1.2 billion pounds. The President had been advised by the Secretary of Agriculture that anticipated imports for 1976 through the fourth quarter would exceed the level specified by the Act above which quotas are triggered. The amount set by the President is 112.1 million pounds over what the quota would have been following solely the method of computation set out in the Act. In setting the higher limit, the President exercised authority under the Act which permits such an increase when the President determines that the action is required by the "overriding economic interests of the U.S., giving special weight to the importance to the nation of the economic well-being of the domestic livestock industry."

New Public Laws: The President signed into law the Tax Reform Act (P.L. 94-455) as agreed upon by the House-Senate Conference Committee. For details of sections relevant to the international trade field, see the *Official Trade Briefs* in the Sept. 27 issue. Two other signings are reported below, under "Congress."

Regulation of Exports: The President, utilizing authority of section 5(b) of the Trading with the Enemy Act, issued Executive Order 11940 continuing his authority to exercise and administer export controls. The action was necessitated by the expiration of the Export Administration Act of 1969.

CONGRESS

Public Laws: The following bills have been passed by both Houses and signed by the President: H.R. 11321, to suspend until July 1, 1978, the duty on certain **elbow prostheses** imported for charitable therapeutic use or free distribution by certain public or private nonprofit institutions (P.L. 94-451); and S. 2839, the International Investment Survey Act (P.L. 94-472).

S. 2839, as enacted by the Congress, provides for: (1) collection and publication of regular data on international investment; a benchmark survey on foreign direct investment in the U.S. and on U.S. direct investment abroad at least once every five years; and a benchmark survey on U.S. portfolio investment abroad within the next five years and thereafter if the President finds such study to be feasible and necessary; and (2) initiation by the President of studies to test the feasibility of establishing a system to monitor foreign direct investment in agricultural, rural, and urban real property.

Enrolled Enactments: Before adjourning, the House and Senate passed and cleared for the President's signature the following bills: H.R. 12033, to continue until June 30, 1979, suspension of duty on **manganese ore** (including **ferruginous ore**) and related products; H.R. 2177, to exempt from duty certain **aircraft components** previously exported from the United States; and H.R. 13955, to amend the Bretton Woods Agreement Act, including an amendment to increase the U.S. quota in the International Monetary Fund by approximately $2 billion.

The Senate, before passing and forwarding to the President H.R. 2177, deleted an amendment regarding classification of cotton textile articles in Schedule 3 of the Tariff Schedules of the United States and an amendment permitting the designation of non-embargoing members of the Organization of Petroleum Exporting Countries (OPEC) as beneficiaries for the U.S. Generalized System of Preferences (GSP).

Dead Legislation: Bills which did not receive final action by the Congress before adjournment include: H.R. 15377, to extend the Export Administration Act of 1969; H.R. 12254, to suspend duties on certain **bicycle parts and accessories;** H.R. 9401, to suspend the duty on certain **horses;** and H.R. 2181, regarding duty-free treatment for certain **aircraft engines** (See related stories below).

Import Relief Resolutions: The Senate Finance Committee during September passed two resolutions requesting that the ITC: (1) reopen the "escape clause" investigation of **non-rubber footwear** under Section 201 of the Trade Act; and (2) institute a new investigation under the escape clause procedures regarding the impact of imported **sugar** on domestic producers.

Bills Passed—Senate: The Senate passed S. 3664, to require issuers of registered securities to keep accurate records, and to prohibit the payment of overseas bribes by any U.S. business concern; and S. 2440, to require that imported **tomatoes** conform to packing standards imposed on domestic tomatoes under marketing order. Measures passed and sent back to the House include an amended version of H.R. 12254, to suspend the duties on certain **bicycle parts and accessories** until June 30, 1978; and H.R. 9401, also amended, to continue until June 30, 1978, suspension of the import duty on certain **horses.**

The Senate also passed resolutions for ratification of the Customs Convention on **Containers** of 1972 and the Fifth International **Tin** Agreement. The Customs Convention on Containers of 1972, is designed to supersede and update the Customs Convention on Containers of 1956. The new convention provides for, among other things, the temporary importation of containers free of import duties and taxes, restrictions and prohibitions. A primary effect of the convention will be to facilitate the use of U.S.-owned and operated containers in international traffic by insuring that they will receive treatment in countries which are parties to the convention similar to that which is afforded foreign-owned containers in the U.S.

The International Tin Agreement is a five-year treaty between tin producing and tin consuming countries. Its major objective is to stabilize the supply of tin at price levels which are "fair" to consumers and "remunerative" to producers through the use of a tin buffer stock and export controls.

Bills Passed—House: The House passed H.R. 15377, to extend the Export Administration Act of 1969. A similar bill, S. 3084, was passed by the Senate after being amended to contain the language of the House bill. A House-Senate conference was called to resolve the difference between the two bills; however, the Senate failed to name conferees before adjournment and final action on the bill was thus prevented. It is anticipated that new legislation will be introduced during the next Congress.

The House also passed H.R. 2181, to amend the Tariff Schedules of the U.S. to provide duty-free treatment of any **aircraft engine** being overhauled within the U.S. if duty was paid on the replacement engine during a previous importation. Included in the House-passed version was a Senate amendment to revise the Meat Import Act to subject meat imported into the U.S. from a foreign trade zone to the import restrictions provided for by law or trade agreements. The House rejected a second non-trade related amendment to the bill and returned H.R. 2181 to the Senate for further consideration. Finally, while the House passed and sent to the Senate H.R. 9401, to continue the temporary duty suspension on certain **horses**, the bill failed enactment when the House failed to act on the amended version subsequently passed by the Senate.

Committee Action—Senate: The Subcommittee on International Trade of the Senate Finance Committee held hearings on a proposal to continue Most-Favored-Nation tariff treatment of imports from Romania, at which testimony was given by Arthur Downey, Deputy Assistant Secretary of Commerce for East-West Trade.

Committee Action—House: The Ways and Means Committee held a hearing on H.R. 15357, a bill to amend Schedule 8 of the Tariff Schedules of the U.S. to require proof of liability insurance for **automobiles** entered into the U.S. for personal use by non-residents and foreign government personnel. Testimony was given by Louis Dwyer, Insurance Adviser, Domestic and International Business Administration, Department of Commerce.

On other trade bills, the Ways and Means Committee's Trade Subcommittee held hearings on H.R. 15421, to amend the Trade Act of 1974 to expand the category of workers eligible to apply for adjustment assistance to include certain individuals whose last separation from employment occured more than one year prior to date of the petition for certification. The Subcommittee also held hearings on the President's recommendation to continue MFN tariff treatment of imports from Romania.

Other committee action included a hearing by the House Committee on Banking, Currency and Housing's Subcommittee on International Development Institutions and Finance on resolutions relating to foreign **palm oil** development loans, and hearings by the Subcommittee on Consumer Protection and Finance of the Committee on Interstate and Foreign Commerce on H.R. 15481, H.R. 13953 and H.R. 13870, Foreign Payments Disclosure Act, amending the Securities Exchange Act of 1934 to require issuers of securities registered pursuant to section 12 of the Act to maintain accurate records and to prohibit certain bribes. Testimony was given by General Counsel John T. Smith and Assistant Secretary for Policy Richard Darman of the Commerce Department. Finally, the House Committee on Government Operations filed a report entitled "Effectiveness of Federal Agency Enforcement of Laws and Policies Against Compliance by Banks and other U.S. Firms with the Arab Boycott."

New Legislation: In the second session of the 94th Congress, 191 trade and trade-related bills have been introduced. Bills not previously reported in this column include: H.R. 15459, to impose quantitative limitations on the importation of **mushrooms** into the U.S.; H.R. 15485, to assure American consumers of a stable and adequate supply of **sugar** and assuring the continued existence of a viable domestic sugar industry by amending the rate of duty on sugar, prohibiting exportation of any sugar produced from sugar cane or sugar beets grown within the U.S. unless the domestic sugar production for any year is in excess of domestic consumer requirements, and prohibiting GSP treatment under the Trade Act of 1974; H.R. 15554, H.R. 15670 and H.R. 15722, to amend the Meat Import Act to provide that articles which are produced or manufactured in foreign-trade zones from foreign **meat** shall upon their entry into the customs territory be subject to certain import restrictions; H.R. 15574, H.R. 15614, H.R. 15615 and H.R. 15693, to amend the Meat Import Act in order to limit the quantity of certain prepared or preserved **beef** or **veal** which may be imported into the U.S. after 1976; H.R. 15727, to amend the **meat** and **meat products** import control law; and H.R. 15906, to provide for the temporary suspension of duty on the importation of **color couplers** and **coupler intermediates** used in the manufacture of **photographic sensitized material** (provided for in tariff items 403.60 and 405.20).

Among resolutions introduced were H.Res. 1556, H.Res. 1596, and H.Res. 1597, directing the President to submit to Congress and to the Commission on Security and Cooperation in Europe a detailed report on the Romanian Government's record concerning the right of its citizens to emigrate. The resolution expresses the intent of Congress to terminate Romania's Most-Favored-Nation status if the reports do not reveal significant progress toward freedom of emigration and other fundamental human rights. Also introduced were H.Con.Res. 742, urging the President to continue negotiations for an international agreement regulating **nuclear exports**; H.Con.Res. 746, disapproving the waiver by the Secretary of the Treasury of the imposition of countervailing duties on imports of **leather handbags** from Brazil; S.Res. 555, expressing Senate disapproval of the extension of the President's waiver of the freedom of emigration limitations on extension of Most-Favored-Nation treatment to Romania; and S.Con.Res. 213, disapproving the President's action under section 203 of the Trade Act of 1974 in declining to act on the recommendation of the ITC to provide import relief to domestic producers of **honey**.

Trade Adjustment Assistance For Workers

SINCE APRIL, 1975:

- **410 petitions certified**
  - **Approximately 156,800 workers affected**
  - **Industries principally affected:**
    Transportation Equipment
    Wearing Apparel
    Electrical Machinery and Equipment
    Leather and Leather Products
- **446 petitions denied**
- **162 petitions in process**

SPECIAL TRADE REPRESENTATIVE

Poultry/Cognac: On Sept. 21 and 22, the Executive Branch interagency Trade Policy Staff Committee (TPSC) held public hearings on a proposed duty increase for certain **brandy** valued at over $9 per gallon. The duty increase is being considered in view of the fact that a 1974 Presidential Proclamation decreasing the U.S. duty on such brandy (mainly French cognac) had failed to achieve its objective of encouraging the removal of unreasonable import restrictions maintained by the European Community on U.S. **poultry**.

Testifying at the hearing were witnesses favoring reimposition of the higher duty (representing domestic poultry and egg interests) as well as those speaking in opposition to the proposed increase (representing domestic alcoholic beverage distillers, importers, wholesalers, and retailers).

TREASURY

Antidumping: The Department has issued a finding that **melamine in crystal form** produced by the Nissan Chemical Co. in Japan is being sold in this country at less than fair value within the meaning of the antidumping law. The case has been referred to the ITC for a determination of injury to the U.S. industry. Should injury be found, antidumping duties will be assessed on subject merchandise imported after June 18, the date on which Customs appraisement was withheld.

Also, Assistant Secretary Macdonald announced the tentative discontinuance of an antidumping investigation concerning **automobile body dies** from Japan. The Customs investigation revealed that those margins which were found to exist were minimal in relation to the volume of trade, and, in addition, written assurances of no future sales at less than fair value have been received from counsel acting on behalf of the exporter accounting for 78 percent of the exports of the subject merchandise from Japan during the investigatory period.

Countervailing Duty Case: A preliminary determination has been rendered that bounties or grants within the meaning of the countervailing duty law are being paid on **cotton yarn** exported from Brazil to the U.S. A final determination is due by March 9, 1977.

COMMERCE

Secretary Richardson announced approval of $1,000,000 in trade adjustment assistance loans to help save 161 jobs at the Dame Belt Co., Inc., in New York City, manufacturers of **belts** and **handbags**. As a result of injury to its operations from import competition, the firm had been certified to apply for adjustment assistance under the Trade Act of 1974.

LABOR

Adjustment Assistance—New Investigations: The Labor Department has initiated 73 new investigations to determine whether workers at plants across the country and in Puerto Rico are eligible to apply for trade adjustment assistance. A great many of these investigations involve the **clothing** and **footwear** industries. The investigations, which must be completed within 60 days, will seek to determine whether increased imports contributed importantly to the unemployment of a significant number of workers in the subject industries. If so, the Department may certify that the affected workers are eligible to apply for adjustment assistance. Such assistance, under the Trade Act of 1974, may include cash trade readjustment allowances, training, testing, counseling, job placement, job search grants, and relocation allowances.

Certifications: The Department has certified workers at a number of firms as eligible to apply for trade adjustment assistance. These workers have been or may become unemployed as a result of increased imports. The workers certified (numbers where available are approximate) are or have been employees of the following firms: Spicer Transmission Div. of Dana Corp., Toledo (**truck transmissions** and **parts**) 1400; Burroughs, Inc., Electronic Component Div., Warren, N.J. (**electronic calculator displays**) 500; Bethlehem Steel Corp., Alloy and Steel Dept., Bethlehem, Pa. (**tool steels, alloy steels**) 375; Excellent Bag Corp., Brooklyn (**handbags**) 105; ITT Harper (Div. of International Telephone and Telegraph Corp.), Morton Grove, Ill. (**non-corrosive fasteners, extruded products**) 70; Modulus Corp., Mt. Pleasant, Pa. (**metal fasteners**) 150; Stylecraft Clothing Co., West Orange, N.J. (**men's leisure suits**) 95; Mirando Mfg. Co., Inc., Elizabeth, N.J. (**men's leather jackets**) 10; Bethlehem Steel Corp., Lanman Bolt Plant, East Chicago, Ind. (**industrial fasteners**) 65; Tarra Hall Clothes, Inc., New York (**men's suits**) 25; Nyanza, Inc., Ashland, Mass. (**dyes and intermediates**) 15; Babcock and Wilcox Co., Tubular Products Div., Beaver Falls, Pa. (**seamless steel tubings and fittings**) 325; Progressive Uniform Mfg. Corp., Philadelphia (**men's and women's clothing**) 130; Satralloy Inc., Steubenville, Ohio (**ferrochrome alloys**) 170; Marilinda Sportswear, Fall River, Mass. (**men's leisure suit jackets, suit jackets, sport coats, and pants**) 20; Converse Rubber Co., Bristol, R.I. (**canvas footwear**) 500; United States Steel Corp's American Bridge Div., Antioch, Calif., (**structural steel**) 140; East West Leathers, Inc., San Francisco (**leather jackets and coats**) 45; Gibbs Mfg. and Research Corp., Janesville, Wis. (**organ cables**) 50; Ellwood Knitting Mills, Inc., Ellwood City, Pa. (**men's sweaters**) 15; La Toska Fashions, Inc., Long Island City, N.Y. (**women's nonrubber footwear with leather uppers**) 15; Warnaco Men's Sportswear, Inc., Altoona, Pa. (**men's sweaters and sport shirts**) 685; Carroll Shoe Co., Summersville, W. Va. (**canvas-top basketball shoes**) 160; Brown Shoe Co., Versailles, Mo. (**handbags**) 135; Lawrence Maid Footwear, Lawrence, Mass. (**women's and misses' shoes and sandals**) 120; Reed and Prince Mfg. Co., Worcester, Mass. (**ferrous and non-ferrous fasteners**) 260; Tyrol Sportswear Co., Brooklyn (**women's and men's sweaters**) 50; Majestic Silver Co., New Haven, Conn. (**stainless steel flatware**) 25; Bethlehem Steel Corp., Lebanon, Pa. (**industrial fasteners**) 550; Norvelt Clothing Co., Norvelt, Pa. (**men's car coats and leisure suit jackets**) 75; Vulcan Rivet and Bolt Corp., Birmingham, Ala. (**steel fasteners**) 90; and Friedman-Marks Clothing Co., Richmond, Va. (**men's suits and sport coats**) 1200.

Denials: The Department denied petitions for trade adjustment assistance for workers of the following companies: The Torrington Co. (Broad St. Plant), Torrington, Conn. (**anti-friction roller bearing rollers**) 150; United Tool and Die, Inc., Salem, Ohio (**tools, dies, jigs, and fixtures**) 90; Wilkinson and Son, Inc., Somerville, N.J. (**fabricated marble**); Titanium Pigments Div. of N. L. Industries, Inc., St. Louis (**titanium dioxide pigment**); Richmond Screw Anchor Co., Tremont, Pa. (**tying devices, anchorages, inserts, and accessories**); Republic Steel Corp., (South Div.), Canton, Ohio (**stainless and alloy steel**) 280; Russell Burdsall and Ward, Inc., Rock Falls, Ill. (**metal fasteners**); Corplex International Corp., Hillside, Ill. (**purchase and installation of electronics equipment**); Textron, Inc., (Talon Div.); Meadville, Pa. (**slide fasteners**); Janesville Auto Transport Co., Janesville, Wis. (**transportation services for motor vehicles**); Beaunit Corp., Humacoa, P.R. (**nylon and acetate tricot knit fabric**) 75; Telescope Folding Furniture Co., Inc., Granville, N.Y. (**wooden and metal outdoor and casual furniture**) 340; International Shoe Co., Belle, Mo. (**women's shoes**) 100; Complex Auto Transit, Inc., St. Louis (**transportation services**); Jo-Gal Shoe, Inc., Lawrence, Mass. (**infant's, children's and misses' shoes**); Lowengart Corp., Tanning Division, Ponce, P.R. (**receiving, storing and shipping of raw cattle hides**); United States Steel Corp. (Cuyahoga Works), Cleveland (**carbon wire rod, wire and wire products, sheet, strip and strapping**) 950; International Shoe Co., Windsor, Mo. (**work shoes**) 210; Denton Mills, Inc., Centerville, Mich. (**children's knit sleepwear, men's, women's and children's knit sweaters**) 100; Bethlehem Steel Corp., Williamsport, Pa. (**wire rope**); Vulcan Mold and Iron Co., Latrobe, Pa. (**ingot molds**); General Instrument Corp. (Engineering Dept. and Model Shop of the Automotive Electronics Division), Chicopee, Mass. (**design of auto car radio tuners**); Gibbs Mfg. and Research Corp., Janesville, Wis. (**organs and safety and arming devices**), PPG Industries, Inc., Mt. Vernon, Ohio (**sheet, plate, and float glass**) 225; Textron, Inc., Talon Division, New York (**slide fasteners and parts**); Modern Cloth Sponging Co., Philadelphia (**cloth** for clothing manufacturers); Mobilizer Medicinal Products, Inc., Mayaguez, P.R. (**electronic stretchers**); U.S. Steel Corp., New Haven, Conn. (**wire rope and strand**); Cute Togs of New Orleans, Inc., New Orleans and Donaldsonville, La. (**children's clothing**) 100; Chrysler Corp. (Dept. 3505), Twinsburg, Ohio (**dies**) 100; Bombay Slipper Co., Bombay, N.Y. (**slippers**) 10; Carol Shoe Division of Shaer Shoe Corp., Lowell, Mass. (**women's dress shoes**); Marble Unlimited, Inc., Belleville, N.J. (**setting marble**); Mc-

Kenna Industries, Inc., Chicago (sale and installation of **auto stereos, speakers, and home electronic equipment**); Ampex Corp., Redwood, Calif. (**components of tape recorder head assemblies**); Armco Steel Corp., Zanesville, Ohio (**silicon steel sheet and strip**) 265; and H. P. Snyder Mfg. Co., Little Falls, N.Y. (**bicycles**).

INTERNATIONAL TRADE COMMISSION

Section 201—Import Relief Cases: Since the last *Trade Briefs* the ITC has instituted a new escape clause investigation on **sugar**, reopened investigations regarding **mushrooms** and **non-rubber footwear** and has received a request to initiate an investigation on **color television receivers** to determine whether increased imports are a substantial cause of serious injury to the domestic industry.

Concerning the investigation of the effects of imports of sugar on domestic producers, public hearings will be held in Washington, D.C. at 10 a.m., on Nov. 4, in the Hearing Room of the Commission Building, 701 E Street, NW.; in New Orleans on Nov. 11, and in San Francisco on Nov. 30. Times and places for the latter two hearings are to be announced. Requests to appear should be received by the Secretary of the Commission at his Washington office by noon of the sixth calendar day preceding the hearing. (See related story under "President.")

The decision by the ITC to reopen previous escape clause investigations of canned mushrooms and non-rubber footwear followed a request for such re-initiation of the investigations by the President's Special Trade Representative (mushrooms) and a unanimous resolution of the Senate Finance Committee (footwear). In both cases, the ITC had the option of opening the investigations or denying the requests because less than a year had elapsed since the last ITC findings on these products were issued. Having determined good cause to exist for reinvestigations, the Commission instituted expedited investigations and scheduled public hearings as follows: The mushroom hearing will be held at 10 a.m., on Nov. 11, and the footwear hearing at 10 a.m., on Dec. 7, both at the Washington address above. Requests to appear should be received in writing by the Secretary of the Commission by noon on Nov. 5, and noon on Dec. 2, respectively.

Also, the ITC has received a petition from several manufacturers and unions in the **television** industry requesting import relief in the form of quantitative restrictions on **finished color television receivers**. The petition coincides with a recent dramatic increase in imports of color television sets.

Stainless Steel: In another action related to import relief, the Commission has reported to the President the results of a survey conducted on U.S. producers of **stainless steel** and **alloy tool steel**. The study includes statistics on U.S. **specialty** steel production, shipments, employment, and manhours. The report was issued in accord with the President's authorization of import relief for the industry.

GSP: The ITC has instituted an investigation, at the request of the President, to obtain the data necessary for review by the Trade Policy Staff Committee (TPSC) of certain petitions from domestic producers to remove products from the list of articles eligible for duty-free treatment under the GSP. The categories of products to be investigated are: (1) **leather wearing apparel**; (2) **permanent-magnet direct current motors**; and (3) **cast iron household stoves, parts** thereof and **fireplace grates**. The Commission reports on leather apparel are to be issued no later than Nov. 10, and for motors and stoves and grates by Jan. 12. Public hearings in connection with the investigation of leather apparel will be held in New York beginning at 10 a.m., on Oct. 29 (location to be announced), and in connection with investigations of motors and stoves and grates in the Commission's Hearing Room, 701 E Street, NW., Washington, D.C. 20436, beginning at 10 a.m. on Nov. 16. Requests to appear should be addressed to the ITC Secretary at the address given above, by Oct. 26 for leather apparel and by Nov. 12 for the Nov. 16 hearing.

In other GSP action, the Commission recently reported to the President its advice on the probable economic effects on domestic producers and on consumers of granting GSP status to certain additional products, including: several kinds of **fish**; certain **flower bulbs** and **fruit trees** or **plants**; **milled grains** and **sesame oil** not intended for human consumption; certain **fresh** or **frozen vegetables**; **typewriter ribbons**; **artificial flowers**; certain **cotton** and **manmade-fiber** articles; and certain **live animals**. A public hearing was held on Aug. 3, regarding the addition of these products to the list of articles eligible for GSP duty-free treatment.

Countervailing Duties: The Commission has issued a finding that no U.S. industry is being injured by imports of **zoris** (footwear) from the Republic of China, which the Treasury Department had determined previously to be benefitting from payments of a bounty or grant. The ITC found that total U.S. consumption of zoris is supplied by imports, which were valued at about $4.8 million for the first half of 1976. Hong Kong and the Republic of China are the principal U.S. suppliers.

Section 337—Unfair Trade Practices: The Commission granted the joint motion of complainants, respondents and other interested parties to terminate the unfair trade practices investigation regarding **monolithic catalytic converters**, after rendering a finding that there was no violation of section 337 of the Tariff Act of 1930.

Study of the Watch Industry: The ITC has instituted an investigation under section 332(g) of the Tariff Act of 1930 at the request of the House Ways and Means Committee to determine: (1) the probable economic effect of H.R. 14600, a bill to amend the tariff treatment accorded to high-precision watches and (2) the need to protect the domestic industry from import competition. A public hearing will be held in the Commission's Hearing Room, at the Washington address given above, at 10 a.m., on Dec. 14. Requests to appear must be received by the Secretary of the Commission by noon on Dec. 9.

Reports: The Commission has released a report on its study of U.S. **palm oil** imports and their relationship to domestic vegetable oil and fat products. The report was prepared as a result of increased concern by members of Congress and the public about escalating palm oil imports and international production, and palm oil's competition with other types of fats and oils.

INTERNATIONAL

Foreign Anti-Dumping Actions: In Canada, an investigation has been initiated, under section 13(1) of the Anti-Dumping Act into alleged injurious dumping of **calcium propionate**, **sodium propionate**, and **sodium benzoate** originating in the U.S. In another Canadian action, the Anti-dumping Tribunal has initiated an inquiry under section 16 of the Act, following a preliminary determination of dumping into Canada by an American company of **painted aluminum roll formed sheets** and related parts used in the manufacture of step down awnings. On Sept. 14, positive injury determinations were issued by the Canadian tribunal regarding some, but not all **gymnasium equipment**, previously determined as being dumped by the Nissan Corp. of Cedar Rapids, Iowa.

In addition, the Canadian Antidumping Tribunal has issued a notice of review under section 3 of the Antidumping Act of a 1971 dumping finding concerning certain **single-use syringes** manufactured in the U.S. and Japan, and of a 1973 finding concerning certain **caulking and sealing compounds** originating in the U.S. Public hearings are scheduled to begin Nov. 1 and 4, respectively.

Finally, following a conclusion by the Canadian Deputy Minister of National Revenue for Customs and Excise that there was no evidence that the dumping of **scholastic and award rings** into Canada had caused or was likely to cause material injury, the Antidumping investigation concerning said rings has been terminated.

FARNBOROUGH AIR SHOW: U.S. EXHIBITORS SEE AVIONICS SALES CLIMBING

The current lively European market for avionics and other air support equipment helped launch a recent U.S. exhibition near London into impressive sales results. At this second U.S. Government participation in the biennial Farnborough Air Show—the first was in 1974 when the event became international—the 40 exhibitors made floor sales of more than $10 million and forecast orders in the next 12 months at some $100 million.

Cardion Electronics, making its first appearance at Farnborough, offered a range of identification and surveillance equipment, and radio and radar systems.

"We sell primarily to airports," said Jim Rudd, the company's international marketing specialist. "We came to this show to make new contacts and we have succeeded. The caliber of people drawn to the U.S. exhibit has been high and we have met many people from Britain and the Continent whom we might never have encountered by routine business procedures. These will be followed up energetically during the coming months and we expect considerable business to accrue."

Aircraft Turbine Service, a division of the Purex Aviation Group, is expecting to handle $100,000 worth of aircraft servicing business in the fiscal period following Farnborough. Edwin Gehricke, marketing manager, said, "This is our first experience at Farnborough and within two days it was made clear that a good market exists for us in the sectors served by this show. Our recommendation will be that our entire organization be represented at the next Farnborough show in 1978. We have been able to demonstrate our capability to a lot of important people and to generate a great deal of interest in our services."

From FieldTech Ltd., a British agency representing the Communications Components Corp. of Costa Mesa, Calif., and I.F.R. Inc. of Wichita, Kan., Terry Perry commented, "Farnborough is growing in international status and the U.S. exhibit has drawn a lot of interest from Europe. We introduced the new Ontrac III, an Omega navigational system, for C.C.C. This is an ideal system for executive jets and, while we think the U.K. market is quiet in this sector at present, we expect a lot of European business to result. On the I.F.R. front, we have been offering avionic test equipment and have experienced a terrific response. We like to do on-site demonstrations in the workshop or on the flight line and in this exhibit we have actually turned business away because people wanted to pay cash for untried equipment!"

Norman Orwat, president of Lockheed Aircraft (Europe) S.A., and based in London, said, "My company has made a clear choice of European exhibitions; we come to Farnborough and Paris." Apart from the luxurious Gulf Air Tri-Star parked in the static display, which drew 150,000 visitors during the show, Lockheed had two of its companies, Aircraft Service and Electronics Co., in the U.S. exhibit. On the service front, it was estimated that contacts worth $800,000 a year had been made, while in electronics, there was considerable long-term interest in weapon control systems and flight recorded analysis equipment.

AT AIR SHOW NEAR LONDON—*As the President's personal representative at the Farnborough International Air Show, Senator Barry Goldwater (left) gets a "briefing" from U.S. exhibitor J. Blond, Grumman International.*

Automotive Test, Repair Equipment Market Seen Expanding Down Under

That U.S. suppliers of automotive test, service and repair equipment should find a receptive and growing market Down Under was borne out during a recent exhibition at the U.S. Trade Center in Sydney. The event, for which 15 U.S. companies displayed the latest equipment for testing, servicing and repairing motor vehicles, generated lively interest in both Australia and New Zealand.

Australia has the second highest level of vehicle ownership in the world, surpassed only by the United States. However, the general standard of automobile mechanics in Australia is well below that in the United States. This situation is expected to change fairly rapidly as vehicle repair and service centers compete for business and seek ways to increase staff efficiency and minimize labor costs. Vehicle owners, too, are demanding increased and better servicing of their motor cars. This is hardly surprising when it is considered that Australians pay among the world's highest prices for their cars and, consequently, expect them to last longer.

Off-the-floor sales of $965,250 were recorded during the exhibition with $5.7 million in projected sales over the next 12 months. At the close of the show, seven export representatives had been appointed with a further seven export representatives and two licensing agreements under negotiation. Nine exhibitors made new country market penetrations in New Zealand.

A series of seven technical sessions on the state-of-the-art in vehicle testing and servicing was well attended. Among those present were several students, apprentices, and staff from technical colleges and other training institutions. This is indicative of the interest in modern technology current in the industry.

SIGNING UP DOWN UNDER—*Robert Greene (right), president of Specialty Tools Inc., gets signature on order for hand tools during U.S. Trade Center show in Sydney.*

EXHIBITING IN SYRIA—*At U.S. pavilion, Damascus International Fair, representative (center) of Applied Power, Inc., shows his firm's automotive testing and maintenance equipment to visiting Under Secretary of Commerce Edward O. Vetter (left).*

U.S. FIRMS FIND READY MARKETS AT DAMASCUS INTERNATIONAL FAIR

Prompted by the success of U.S. participation in 1974 and 1975, 20 companies displayed their products at a larger and more attractive U.S. pavillion during the 23rd Damascus International Fair. Nine of the U.S. exhibitors were new to the market.

Syria is preparing its fourth five-year development plan with exdenditures up to $20 billion in agriculture, irrigation, dams, phosphates, textiles, communications, construction, tourism, and petroleum. U.S. exports to Syria in 1976 are running well over twice the rate of last year.

"This was our first participation in Syria in more than 20 years," a representative of Addressograph-Multigraph Corp. commented. "Products exhibited attracted a lot of attention and interest. We would participate again if the U.S. Government sponsors a pavilion." The Allis-Chalmers Corp. reported that almost all of its exhibited equipment was sold to the Syrian Government for a testing program.

Government major buyer

The major buyer in Syria is the government; the diversified public sector constitutes more than 90 percent of the entire market. The exhibits thus encompassed a broad range of products, including: automated office equipment; automotive machinery and testing equipment; chain assemblies; computers; construction machinery; domestic and commercial appliances; electronic, agricultural, medical and mining equipment; portable construction machinery, and pumps and compressors. Floor sales reached $1.5 million, and 12-month projections are for multi-million-dollar orders.

Fishing Industry Suppliers See Good Sales Prospects In Malaysia, Thailand

Important positive signals on the market for commercial fisheries equipment in Malaysia and Thailand were obtained by a U.S. trade mission that recently visited those countries.

One summary report on the mission's experiences, by U.S. Commercial Attache Donn Heaney of Kuala Lumpur, noted that the sales projections of the seven member firms had erased some early doubts that there was an attractive market for fisheries equipment in Malaysia. The companies expect about $1.9 million in sales in Malaysia over the next year, and $800,000 more in Thailand.

Tempering this optimism, U.S. commercial fisheries suppliers looking to markets in Malaysia and Thailand will at times find those countries holding to traditional procedures, with many operators willing to consider modern technology only through governmental aid. This can raise sales obstacles, because neither government regards fisheries modernization and the export of seafood a primary goal, since most of the current catch is consumed locally.

One of the mission's member firms, Hawaii-based Aquatic Farms, Ltd., won both governmental and private attention for its consulting services program in aquaculture, especially in Malaysia, where catches in the Straits of Malacca have been declining. Company representative Charles Greenwald commented that there are several good prospects for joint ventures in both countries.

In refrigeration, interest was found in icemaking rather than in mechanical cooling. In processing, where sales possibilities were seen to be limited, shrimp preparation equipment has the best prospects. In the engines, engine parts, and motor controls field, penetration of the market must come on a long-term basis. The market for marine electronics, especially fish finders, is favorable. Improved propellers would aid the local fishermen, the mission found, but there is reluctance to recognize this factor in reducing costs.

Members of the mission, in addition to Greenwald and director E. Lee Carteron of the Commerce Department, were: Cemal Baris, Korody-Colyer Corp., Wilmington, Calif.; Neil C. Brophy, General Fish Machine Co., Wakefield, Mass.; Harry Ginther, Michigan Wheel Div. of Dana Corp., Grand Rapids, Mich.; Harold M. Mathers, Mathers Controls, Inc., Seattle, Wash.; Masagi Miyagi, Turbo Refrigerating Co., Denton, Tex.; & C. Norman Noble, Noble Int'l, Bellevue, Wash.

PRESENTATION IN MALAYSIA—*Mission member Charles F. Greenwald (standing), Aquatic Farms Ltd., describes his firm's services to officials of the Fisheries Development Board in Kuala Lumpur. At left is Cemal Baris of Korody-Colyer Corp.*

SPAIN TAKES FIRST STEPS ON LONG RECOVERY PATH; EEC ADMISSION IS GOAL

The Spanish economy remains in recession but is showing some uncertain signs that the decline of the past two years has reached bottom, reports the U.S. Embassy in Madrid. There are still serious problems, but there is a growing feeling that economic recovery elsewhere in the world will provide the stimulus to get the economy moving again.

Since the death of General Franco, Spain has been subjected to a convergence of economic and political events that might well have been expected to create far more difficulties and disruptions than have in fact occurred. That the short to medium-term outlook remains relatively positive and the long-term picture still brighter attests in part to the enormous economic changes that have occurred in Spain over the last 15 years. Since the middle of 1974 the Spanish economy has been subjected to a sharp slowdown in growth of GNP, a high rate of inflation, growing unemployment and increasing balance of payments deficits.

All of these have occurred in the midst of a political transition that in some ways is historically unique. That this transition has so far proceeded as peacefully as it has, with some renewed signs of economic optimism recently apparent, is remarkable. While there are still many problems to be faced—both economic and political—and while these seem certain to persist in one form or another for the next several years, the situation in Spain is considerably more positive than the image apparently conveyed abroad by various news media.

The Spanish economy had a poor year in 1975. While the increase in the cost of living declined to 14 percent for the year from 18 percent in 1974, unemployment rose to well over 5 percent, the current deficit in the balance of payments reached an unexpectedly high $3.5 billion, and real GNP growth was estimated at less than 1 percent.

Since the early 1960s Spain has become increasingly tied economically to the rest of the western world, so it is not surprising that there have been problems there when one considers the decline in economic output which has occurred elsewhere. Perhaps the surprising thing is that Spain has been able to show any real growth at all. At the same time, because of extensive borrowing from the IMF Oil Facility and in the Eurocurrency market, foreign exchange reserves in 1975 were maintained at a very nearly constant level of about $5.9 billion, high for an economy of this size.

What the economy needs

The combination of economic problems facing Spain is difficult to deal with. What is needed, and what is being more or less counted on by Spanish authorities, is an export-led recovery responding to renewed growth and demand in the United States and elsewhere in Western Europe. The slowdown abroad has stifled the growth of export receipts, foreign tourist revenues and emigrant workers remittances, has tended to reduce foreign investment in Spain (probably much more than political uncertainty has) and, with the enormous increase in the price of oil, has combined to produce the present situation.

In the first part of 1977 there should be improvement in some key areas but possibly deterioration in others, such as inflation. It seems likely that the recession which began in mid-1974 and has more or less continued until the present time has seen its low point.

Some economists have noted what they feel are the first signs of recovery although the indicators are still sufficiently conflicting so that it is hard to be enthusiastic about the level of improvement thus far. Estimates vary as to real GNP growth for 1976, ranging from 2.5 to 3.5 or 4 percent. Any of these figures would represent healthy improvement over 1975 and the latter half of 1974, but possibly a figure closer to 2 percent is more likely.

Monetary policy is designed to be restrictive until at least the end of the year while fiscal policy should be only mildly expansionary. But despite a number of problems, 1976 is seeing some improvement over 1975, and if recovery abroad stays on track, 1977 should be still better.

Foreign investment in Spain has been limited recently by the worldwide slump and to a lesser degree by a "wait and see" attitude of some foreign firms since the death of General Franco. The political picture has evolved in an atmosphere of relative calm. Parliamentary elections are scheduled for early 1977. There was considerable strike activity early this year, but the labor situation is now more peaceful. Wage settlements, however, have been substantial.

Spain's balance of payments situation has worsened markedly in the past two years, and foreign debt is up to some $9 billion. The outlook is for continuation of large deficits, at least for a few years, but the growing external debt is still considered manageable. The 10 percent depreciation of the peseta in February should eventually enhance Spain's trade outlook, although the decline of other European currencies has eroded some of the initial advantage. Tourism has remained surprisingly strong in the face of world recession, but is not improving much, if at all, in 1976. The same is true for remittances from Spanish emigrant workers.

Negotiations between Spain and the EEC have been resumed, no longer aimed at the free trade agreement discussed in 1975 but rather at the extension by Spain of the terms of the 1970 trade agreement to the three newest members of the Community, to be followed by eventual full Spanish membership in the EEC. Such membership is unlikely to come before 1980 and will then involve a phase-in period of several more years. Eventual membership will undoubtedly necessitate considerable structural change in Spanish industry, much

REPRESENTING SPAIN AT SEMINAR—*Felix Varela, Director General of Foreign Transactions in Spain's Ministry of Commerce, speaks to U.S. business officials at the U.S. Department of Commerce. Political, economic and trade developments in Spain and Portugal were analyzed by participants at the two-day meeting sponsored late last month by Commerce and the American Management Associations.*

of which enjoys high tariff protection.

Spanish imports from the United States in 1975, despite the turndown in the Spanish economy, increased from $2.38 billion to $2.59 billion. Even more gratifying was the reversal of the declining trend of the U.S. share of the Spanish import market in recent years: the U.S. captured 15.9 percent as compared with 15.4 percent in 1974. The Export-Import Bank is currently helping to finance over $3 billion worth of U.S. exports to Spain. The Spanish market is one of the two or three largest worldwide for Eximbank.

Numerous opportunities for U.S. exports continue to be exploitable in this attractive market. U.S. capital goods should remain in strong demand, as the Spanish Government has granted high priority to increasing production in the iron and steel industry, the energy sector including nuclear, the petroleum refinery and offshore drilling industries, minerals production, agriculture and food processing, petrochemicals and tourism.

Spain continues to welcome foreign investment and technology. During a recent visit to the United States, the Spanish Minister of Industry confirmed Spain's keen interest in continuing to attract U.S. investment which introduces new technology and which will serve to augment Spanish exports. The Spanish Government has just approved a large petrochemical project which Dow Chemical together with two Spanish partners will construct in Huelva (southwest Spain), while the Ford Motor Co. production facility near Valencia is on schedule and will produce its first cars shortly.

Spanish industry is very interested in labor-saving systems and equipment to offset the steadily increasing cost of labor. Particular industrial targets of opportunity for U.S. products in Spain include metalworking equipment, medical and health care equipment, process control instrumentation, laboratory instrumentation, food processing and packaging equipment, and business systems, including computers. A wide array of U.S. consumer goods—attractively priced and packaged—also has good market potential for U.S. firms willing to research the market for the long haul.

U.S. companies interested in selling to Spain should contact the nearest District Office of the U.S. Department of Commerce. The American Chamber of Commerce in Spain is also most willing to assist U.S. companies entering the Spanish market or seeking to expand sales there. The Chamber's headquarters are located at Edificio Torre de Barcelona, Avenida Generalisimo Franco 477, Barcelona; the Chamber also has an office in Madrid in the Hotel Eurobuilding, Office 9-A, Calle Padre Damian 23.

YUGOSLAVIA SHIFTS FOCUS TO INDUSTRIAL PROMOTION, WILL NEED CAPITAL GOODS

Yugoslavia's economic stabilization program has produced good results on the trade and inflation fronts but at the same time contributed to a slowdown in industrial production. Concern over the stagnating industrial sector, coupled with continued increase in Yugoslav exports to the western developed countries, should lead to relaxation of import controls on spare parts, capital goods, raw materials and semi-manufactured goods. The U.S. Embassy in Belgrade adds that development plans for priority sectors of Yugoslavia's economy offer significant opportunities for U.S. capital goods manufacturers to help supply the country's growing needs.

In the past year overall economic stabilization, including reduction of the balance of payments deficit and curbing of the rate of inflation, has been the primary goal of Yugoslav economic policy. Since the summer of 1975, numerous stabilization measures have been adopted, including import controls. The unifying principle of Yugoslavia's stabilization effort is the attempt to control the volume and structure of investment.

To date, these measures have been reasonably successful as demonstrated by dramatic improvement in the country's balance of payments and inflation figures. After the first six months of 1976 Yugoslavia, aided by continuing import restrictions, had cut its trade deficit to about one-half the deficit in the same period of 1975 and had a modest current account surplus. The inflation rate in January-June 1976 was about 9-10 percent, a remarkable turnaround from the 30+percent of January-June 1975.

A partial cost of the good news on trade and inflation is a disappointingly low growth of industrial production of only 1.1 percent in the first six months, accompanied by shortages of working capital in many industries and retail trade, and high levels of inventories.

Outlook for months ahead

After a $950 million current account deficit in 1975, Yugoslav authorities forecast a similar deficit for 1976. Based on the January-June figures, that estimate is being revised sharply downward. Import controls may be relaxed somewhat in the months ahead to permit greater imports of industrial raw materials, semi-manufactures, spare parts and capital goods. Partially balancing increased imports, Yugoslav exports should continue to grow as they benefit from rising demand of key Western European trading partners.

In May, the Yugoslav Government passed a package of new measures to stimulate domestic demand and revitalize industrial production. These included a more liberal consumer credit policy, selective reductions in the sales tax for several consumer items, a partial relaxation of previously adopted investment restrictions and special incentives to stimulate residential construction.

Yugoslavia's Five-Year Development Plan (1976-1980) sets ambitious growth targets and designates nine areas as priority sectors, including tourism, energy, agribusiness, chemicals, shipbuilding, raw materials, machine building, inter-republic transportation and ferrous and non-ferrous metallurgy. These sectors are to receive 65 percent of all investment over this five-year period.

Significant opportunities exist for increased sales of U.S. capital goods in priority sectors of the Yugoslav economy. U.S. technology continues to enjoy respect and rising labor and production costs in Western Europe have made U.S. goods more competitive. U.S. exports to Yugoslavia in 1975 were $417 million, an 18 percent increase over 1974. Yugoslav exports to the United States during the same period were only $265 million, a decrease of 16 percent. The principal difficulties in increasing U.S. sales will be breaking into an already established market and assuring Yugoslav customers that post-sale servicing will be satisfactory. Other factors important to the Yugoslav customer are financing and counter-trade provisions.

Yugoslavia employs various measures to control imports. These include tariffs, quotas by value or quantity on certain imported goods, licenses and hard currency controls. The large trade deficits of the past two years have led to measures designed to balance trade, including unpublished counter-trade requirements of up to 30 percent for some capital goods and 100 percent for consumer goods, temporary tariff surcharges, and a tightening of requirements for import licenses in general. Products in priority development sectors, companies willing to engage in counter-trade, and those able to offer suitable financing are more likely to find success in the market.

Since 1968 over 100 joint ventures have been concluded between Yugoslav enterprises and foreign investors, including several U.S. firms. Recent investment provisions have reemphasized that the primary Yugoslav goals in joint ventures are to obtain new technology and increase exports. Profit repatriation, for example, is only possible with hard currency earnings from exports. Maximum foreign contribution to the joint venture is 49 percent.

Specific areas of opportunity

Chemicals: This industry is the second largest importer in Yugoslavia, following metalworking. Favorable prospects exist for increasing U.S. exports in this field,

BELGRADE FAIR GROUNDS—*The accompanying article recommends the Belgrade fair facilities, pictured above, as a promotional vehicle for both chemicals and construction equipment. Major sales opportunities exist in both categories.*

as the rapid growth of product demand and insufficient capability of domestic industry will increase the need for imports. In 1975 Yugoslavia imported some $834 million of various chemicals and chemical products. Principal suppliers are the United States, West Germany, Switzerland and Italy. Several U.S. companies have licensing arrangements with Yugoslav enterprises, particularly in pharmaceuticals. Best prospects for U.S. firms exist in basic petrochemical construction, bulk pharmaceuticals and plastic masses. The best promotional vehicle would be an exhibit at the annual chemical exhibit in May of each year in Belgrade.

Metalworking and Finishing Machinery and Equipment: U.S. firms have solid opportunities to increase their current 3 percent share of this import market, as U.S. products are well-respected and increasingly price-competitive. Demand will remain high, with imports expected to hold between $80-$90 million per year over the next three years. West Germany for some years has held the largest share of the market (33 percent), followed by Italy (10 percent) and France (4 percent). Domestic production, which includes a wide variety of metalworking machinery, should grow at about 7 percent per year during the next three years from the current level of around $85 million.

Best prospects for U.S. suppliers are for sales of advanced machinery, including: computer controlled cutting machines; plasma arc machinery; laser-beam machinery; electrochemical and chemical machinery; and advanced numerical control systems for cutting and forming.

End-users would be heavy industry, particularly ferrous and non-ferrous metals processing. Poor prospects exist for imports of any type of machinery produced domestically. The U.S. firm will have to overcome the prevalent belief that its products are too expensive and sophisticated, and must be used with very large production runs to be profitable. Best promotional vehicles would be BIAM, the international metalworking exhibition held every two-three years in Zagreb; the Zagreb Spring Fair; or an individual sales seminar.

Heavy Construction and Mining Equipment: Major sales opportunities have been created here by the emphasis Yugoslavia has placed on exploitation of its large, mostly untapped deposits of coal and ferrous and non-ferrous metals. West Germany has the largest share of the import market (29 percent), followed by the United States (11 percent), Italy (8 percent), and France (3 percent). Total domestic consumption of building, construction and mining machinery is expected to increase by 20 percent per year from the 1975 total of $100 million. U.S. equipment with good sales potential includes rotary and bucket-wheel excavators, conveyors, excavator draglines, bulldozers, loaders, trench-diggers, cranes, dredges, dumpers, graders, scrapers and high-capacity trucks. Domestic production is limited to equipment with relatively small capacity. An exhibition at the Belgrade Construction Fair held in May each year could be fruitful.

Computers and Related Equipment: The Yugoslav market for computer sytems of all types is growing rapidly and should exceed $40 million by 1977. U.S. manufacturers have traditionally been the principal suppliers of computers and related equipment, with domestic production very limited. Main competitors have been firms exporting from Germany, Switzerland and Italy. A market exists for small and medium-size digital computers, minicomputers, punched card peripheral equipment, magnetic ink character equipment, graphic data systems, key-to-tape/disc equipment and data transmission equipment. Computer hardware is relatively well-known in Yugoslavia and most major U.S. manufacturers are well represented; however, there is a noticeable lack of knowledge of proper computer utilization and the possibilities that the computer offers when correctly applied. Consequently, trade promotion efforts should place emphasis on selling know-how and peripheral equipment, including software. The best promotional vehicle would be an exhibit at either the electronics fair in Ljubljana or "Interbiro" in Zagreb (both are in the fall).

Paper and Woodworking Equipment: There is excellent potential for export of this equipment to Yugoslavia, as the country's paper industry relies totally on foreign equipment, and foreign manufacturers provide 70 percent of equipment for the woodworking industry. As these industries, particularly woodworking, are large export earners, import licenses should be somewhat easy for Yugoslav enterprises to obtain. West Germany dominates both markets.

U.S. products with highest sales potential include pulp and paper mill machinery of all types, paper and paper board converting equipment, and various types of woodworking and timber industry equipment with a technological base. At the Zagreb Spring Fair, exhibitors can promote complete lines of equipment and engineering for paper and pulp plants.

Food Processing and Packaging Equipment: This market is expanding rapidly. Yugoslavia has put priority on increasing food production and expanding processing capabilities. It's desire to expand exports to western market, together with increasingly affluent domestic consumers, has led to a need for more attractive and convenient processing and packaging, including frozen and ready-to-serve foods. Imports of FPP equipment, about $35 million in 1974, should increase significantly over the next few years because domestic production is limited. Western Europe is the primary source of equipment, with West Germany (over 40 percent) and Italy (over 13 percent) the main suppliers.

Although U.S. technology is highly respected, our share of the market is insignificant. Equipment with good potential for U.S. suppliers includes all types of freezing equipment, poultry and meat processing equipment, automated dairy equipment, complete processing lines for fruits, vegetables, juices and oils, automated packing, filling and weighing equipment. FPP equipment would be best promoted in an exhibition at the Novi Sad Agricultural Fair.

Port Engineering and Equipment:

Modernization and expansion plans of the six major Yugoslav ports hold potential for significant sales of U.S. equipment. A World Bank Loan of $44 million has been granted for expansion of the Port of Bar and consideration is being given to a loan for construction of a central container port near Rijeka or another site will be chosen. Best U.S. prospects are for container technology and port engineering, mobile and floating cranes (lifting capacity above 15 tons), equipment for small and medium container terminals, warehouse facilities, tugboats (2,500-3,000 h.p.), high capacity dredging equipment, harbor purification and pollution monitoring equipment. Strong competition comes from both Eastern and Western European suppliers.

Electrical Energy Systems Equipment: Over the next several years this market will rise dramatically from the estimated 1974 level of $289 million. To overcome increasing shortages of electricity Yugoslav officials are assigning high priority to development of the power industry. Projects planned and under way are intended to double generating capacity (9,072 MW in 1975) and complete the transmission network by 1980. Total investments may exceed $4 billion (about 25 percent for imported equipment), with similar expansion through 1985. Imports should increase from $123 million in 1974 to over $200 million in 1980. Domestic industry, though quite well developed, cannot supply the volume and capacity of much of the equipment required.

Main competition will come from Western Europe, especially West Germany, which now supplies about 40 percent of imports. Eastern European and Soviet firms will also be strong, particularly on total projects. Equipment with greatest sales potential will be for large (over 300 MW) coal-fired plants such as boilers, turbo-generators, coal and ash handling equipment and instrumentation; for nuclear plants; and high capacity transmission equipment.

Avionics and Ground Support Equipment: Yugoslavia's consumption in this area has been steadily increasing as the federal civil aviation administration and airlines implement measures to modernize and improve the country's air transportation system. The Yugoslav Government has budgeted $60 million for this program over the next five years. Best prospects for U.S. sales are avionics equipment in the areas of radar and navigation, communications (both air and ground), and aircraft service and repair.

The market for aviation support equipment in Yugoslavia is small and will not grow at the dramatic rate projected for avionics equipment. Best prospects for U.S. sales are sophisticated or highly specialized support equipment, such as ground power units, hydraulic repair equipment, and terminal/airline security systems.

Agricultural Machinery and Equipment: Yugoslavia is putting great emphasis on development of agriculture. The market for agricultural machinery and equipment, estimated at over $300 million in 1975, is expanding rapidly, and imports continue to provide about 25 percent of demand. U.S. firms have good prospects for greatly increasing their present 4 percent of the import market. Technical superiority of U.S. agricultural machinery, especially in large, highly complex equipment, is widely recognized. Domestic production is concentrated in smaller-sized, low-capacity equipment. Imports provide the bulk of larger capacity equipment required by the social farms or *kombinats*. European firms are the primary source of imported equipment, and firms from West Germany (16 percent), Poland (13 percent) and Czechoslovakia (9 percent) are the most important suppliers. Markets are particularly good for large, high technology machinery and specialized equipment such as wheel tractors over 100 hp and implements for them; large combines; multirow corn planters and harvesters; advanced grain storage drying and handling equipment; haying machinery; and equipment for fruit, vegetable and berry production. The Novi Sad International Agricultural Fair held each May is recommended for exhibitors.

Kenya Hopes Rise In Exports Will Ease Development Strains

Kenya's second successive year of marginal economic growth and unfavorable terms of trade has seriously strained the government's ability to maintain development momentum and protect its foreign exchange reserves. Nevertheless, recovering economies in the developed nations, the consequent pickup in world demand for primary products, and an extraordinarily strong market for coffee have convinced Kenyan planners that an improvement in domestic production and finances is imminent. The 1976/77 budget has committed an increased share of expenditures to productive rural development programs, while imposing stricter controls on government spending in general, and access to local credit. If assisted by moderating oil prices, sufficient rains (always problematic in Kenya), and careful but flexible demand management policies, Kenya will probably experience a modest economic upswing over the next year, reports the U.S. Embassy in Nairobi.

Despite a general reduction in Kenyan imports, the United States increased the value of its sales to Kenya by 19 percent last year. In line with policies to cancel trade restrictions as soon as feasible, Kenya has removed certain classes of agricultural machinery from the "foreign exchange quota" list and placed them under "open general license."

Concluding a year of negotiations with prospective suppliers in Europe and North America, East African Railways announced its intent to purchase $30 million of locomotive equipment from an American firm.

Although development expenditure on some major tourist programs has been curtailed in the 1976/77 forward budget, the government continues to invite private investment in this field. Through joint participation with a parastatal agency, investors are encouraged to spread services throughout the country and cooperate in Kenyanization of the tourist industry. Improvement of airport facilities in Nairobi and Mombasa will greatly expedite tourist traffic to the major vacation areas. In addition, Kenya is focusing greater promotional effort in Western Europe and the United States to attract the lucrative package-tour trade.

In previous years, potential U.S. investors have paid close attention to Kenya's food processing industry. Government export promotion programs have also assigned top priority to this sector. However, the negligible growth in agricultural production recorded in the last two years plus complaints about low-priced illegal imports have created occasional problems for the industry as a whole. An UNCTAD adviser noted that capacity utilization of many domestic food processing plants is very low and singled out raw material supply as the critical factor.

Amendments to the Foreign Investment Protection Act effective last January introduced some uncertainty into the investment guarantee program offered by the Kenyan Government. Specifically, the government clarified its intent that the investor rather than Kenya must asume the foreign exchange risks of his investment. The amendments also clarified the government's refusal to guarantee in advance the repatriation of capital gains realized upon the liquidation of an investor's assets. This is not to be confused with the guaranteed repatriation of original investment, which is a clear right. The schedule for repatriation of capital profits (capital gains) must be negotiated.

Nevertheless, U.S. companies have affirmed their confidence in Kenya's economic potential by establishing or enlarg-

ing their manufacturing operations. General Motors started construction of its truck assembly plant outside Nairobi. Pfizer Corp. initiated production of molasses feed blocks. Benefiting from an extensive, three-year expansion program, Kenya Canners (Del Monte) boosted exports of canned pineapples from 8,600 tons to 19,900 tons in one year.

Along with food processing enterprises, the Kenya Government has identified potential investment opportunities in textiles (production and weaving of synthetic fibers), sugarcane processing, paper conversion and printing, basic industrial chemicals and metal products.

Finland Is On The Way Back, But Recession Hangover Will Affect Economy For Years

Indications of renewed activity in Finland's export markets have brightened the horizon, but the pace of Finnish recovery will be slow. The U.S. Embassy in Helsinki adds that residual effects of the severe recession as well as unresolved domestic economic problems will adversely affect the economy for several years.

GDP in 1975 declined by one-half of one percent, after a decade of rapid growth. The major factor was a decline in demand for Finnish exports by 17 percent (in volume terms), which reverberated throughout the economy.

It is expected that real wages will show no growth in 1976, and that inflation correspondingly will decline to the 10-12 percent level. Unemployment has begun to decline from the 4 percent level reached early in 1976, with seasonal factors, economic recovery in other countries and Finnish Government programs playing a role. It is expected that GDP will be stable in 1976, or possibly grow less than 1 percent. Moderate growth (3 percent range) is expected in 1977.

Export markets are beginning to revive, although prices remain weak. Most companies are operating at well below optimum capacity, with high unit costs also reflecting inflation and high real cost of labor, and in many cases, heavy debt. Even steadily growing demand will not solve all of the companies' problems, and extremely low net private investment is expected in 1976-78. The weakened competitive position of Finnish companies is a potentially serious problem.

The payments deficits of 1973-75 almost doubled Finland's total external debt and strained the country's financial resources. After an 8.1 billion Finnmark payments deficit in 1975 ($2.1 billion), a deficit in the Fmk 4-5 billion ($1.0-1.3 billion) range is expected in 1976.

Early reduction of the present debt/GDP ratio is essential. The accumulated debt, now some 20 percent of GDP and requiring service nearing 12 percent of export revenues, was a major constraint on the government's anti-recession policies in 1975. Both fiscal and monetary restraint were imperative because of the debt and payments deficits. Such restraint continues to be necessary, although some loosening of monetary policy may be possible in 1977.

The government announced an economic program on April 1, stressing the longer-term need to channel investments into export-oriented sectors, to support employment, and to make public expenditures more efficient.

Throughout the recessionary period, the burden of economic management has fallen on the semi-autonomous Bank of Finland. The Bank has relied on a restrictive monetary policy, not by using the interest rate mechanism, but by reducing the overdraft facilities of the commercial banks. Simultaneously, the Bank has increasingly exercised its statutory authority to control foreign exchange transactions, particularly imports of borrowed capital. In effect, the Bank has full control over the capital markets available to Finnish companies, and foreign borrowing for investment and consumption has been sharply curtailed. It is this Bank of Finland control that has been the foundation of the balance of payments measures. Some form of restriction is expected to be necessary into 1978.

There have been two noteworthy structural changes in Finnish trade in the past few years. The USSR has become a more important trade partner, largely because of the increase in oil prices and in offsetting Finnish deliveries under the barter arrangement. Finland's trade with other Eastern European countries, including those with which it has free trade and/or barter agreements, remains miniscule.

The second interesting development is the proportional growth of exports from the metalworking sector relative to the still most important wood-processing sector. Since the volume of domestic wood available each year is basically fixed, and the government and industry have agreed to limit wood imports to at most 10 percent of total raw wood consumption, growth in value of production from the wood-processing sector depends upon increasing the degree of processing of wood and upon more efficient use of raw materials. The metal industry now accounts for nearly one-third of Finnish exports, up from a quarter two years ago, and has greater growth prospects, although cost levels and marketing are potential problems.

The United States remains Finland's fifth largest trading partner, with a 5.5 percent market share ($415 million). Major U.S. exports to Finland in 1975 (exclusive of agricultural goods) were aircraft and parts ($61.6 million), office machinery ($32.2 million), special purpose motor vehicles ($14 million), scientific and medical instruments ($9.9 million), non-electrical power machinery ($8.7 million), plastic materials ($8.2 million) and chemicals ($6.7 million). Feedgrains, oilseeds, fruit and tobacco were the major agricultural commodities.

Developments in Finland indicate that good opportunities exist for the sale of metalworking and finishing equipment, process control equipment (for both laboratory and industrial use), pollution control equipment and energy systems. Finland is hoping to develop an export-oriented electronic components industry, so production and test equipment could become a promising market. The major constraints on Finland are its cost levels and chronic shortage of skilled labor, so producer goods which enhance labor productivity and efficiency, particularly in the use of energy or raw materials, are of interest in all fields.

U.S. Embassy In Saudi Arabia Opens Commercial Center

The U.S. Embassy in Jidda, Saudi Arabia, opened its new Commercial Center on Oct. 2. The new facility replaces the former center in the Jidda Palace Hotel, and is located directly across from the main entrance to the U.S. Embassy on Palestine Road. In addition to having a more convenient location, the enlarged building will permit consolidation of all commercial services offered by the U.S. Embassy, allow for expansion of such services as the commercial library and trade referral lists, and provide for better display of promotional materials.

The telephone number for the new Center is 51553. The mailing address for U.S.-based firms is American Embassy, APO New York, 09697; for non-U.S.-based firms, P.O. Box 149, Jidda.

Italy Is Gradually Phasing Out Exchange Deposit Regulation

The Italian Government has announced the gradual phasing out of the 50 percent prior exchange deposit in effect since May of this year. A staged reduction in the deposit percentage over the next several months instead of a complete abolition as scheduled for Nov. 3 has been approved. The phaseout schedule is as follows: Oct. 15—reduction from 50 to 45 percent; Nov. 30—reduction from 45 to 40 percent; January 15—reduction from 40 to 25 percent; Feb. 28—reduction from 25 to 10 percent; and April 15—termination of deposit requirement.

Calendar For World Traders

Oct. 25—Knoxville—East Tennessee International Commerce Club, Knoxville Chamber of Commerce meeting.

Oct. 27—New York—International Executives Assn. seminar: Thinking Small for Export Expansion, Summit Hotel.

Oct. 28—New York—World Trade Institute seminar: New Economic Advantages for U.S.-Israel Trade. Peter Hale, Director of the Commerce Action Group for the Near East, will speak.

Oct. 28-Nov. 16—New Orleans — Three-week, six-session seminar on Financial and Marketing Aspects of Exporting and Importing, International Trade Mart Executive Offices. Sponsors: Loyola Univ., International Trade Mart, Economic Development Council, District Export Council, Commerce District Office.

Nov. 3—New York — FCIB Roundtable Conference on International Finance, Credit, Collection, Exchange Problems.

Nov. 3—Houston—World Trade Assn. meeting, World Trade Club.

Nov. 4—Chattanooga—Export Opportunities Workshop, Chamber of Commerce.

Nov. 4-5—New York—World Trade Institute seminars: Guidelines for Doing Business in the Middle East; Handling Exports Effectively (Cargo Movement); and How to Organize and Operate a DISC.

Nov. 7-11—Mexico City—Fall meeting of the Polyurethane Manufacturers Assn., Camino Real Hotel.

Nov. 8-20—Kansas City — International Day: American Royal Livestock Show. Foreign buyers have been invited to attend. For information: 314-751-4762.

Nov. 9—Windsor Locks, Conn.—Doing Business with Eastern Europe conference, Howard Johnson's Conference Center. Sponsors: District Export Council, Hartford Commerce District Office, State Department of Commerce.

Nov. 9—Louisville—Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro East.

Nov. 9—Boston—International Business Center of New England seminar on Labor Relations in Europe, Harvard Club. For information: 617-542-0426.

Nov. 10—Muskegon, Mich.—District Export Council Export Workshop. For information: 313-226-3650.

Nov. 10—Jamesburg, N.J.—State Chamber of Commerce seminar on Trade with Mexico. Allan Sterling of Commerce's Office of International Marketing will speak.

Nov. 10—New York — FCIB Book Exporters Credit Group luncheon, Summit Hotel.

Nov. 11—Memphis—Seminar on Emerging Markets in Africa, Memphis State Univ. Sponsors: MSU, District Export Council, Commerce District Office. Speaker: Sally Miller of Commerce's Office of International Marketing.

Nov. 11—Louisville—International Credit and Finance Assn., Rodeway Inn.

Nov. 11—Memphis—Mid-South Exporter's Roundtable dinner meeting, Monte's.

Nov. 11—Cleveland—World Trade Assn. Workshop on Exporting: The Practical Essentials, Holiday Inn Lakeside.

Nov. 11—Columbia, S.C.—Midlands Trade Club dinner meeting, Carolina Inn. Bureau of Customs officials will speak. For reservations: 803-758-3531.

Nov. 11—New York—Overseas Automotive Club luncheon, Summit Hotel.

Nov. 11-12—New York—Practising Law Institute seminar: The U.S.-Based Corporation Expanding into the International Arena, Barbizon Plaza Hotel. (The same program will be presented Jan. 10-11 at the Los Angeles Hilton.) For information: 212-765-5700.

Nov. 16—Memphis—World Trade Club meeting, Southwestern Univ.

Nov. 16 — Louisville — 27th Kentucky World Trade Conference, Galt House. Sponsors: Univ. of Louisville International Center, Memphis Commerce District Office.

Nov. 16—New York — FCIB Hardware-Automotive & Allied Trades Group luncheon meeting, Summit Hotel.

Nov. 16—Boston—International Business Center of New England seminar on the Far East, Hyatt Regency Hotel, Cambridge. For information: 617-542-0426.

Nov. 17—Greenville, S.C. — Greenville-Spartanburg International Trade Club meeting, Textile Hall. For reservations: 803-233-2564.

Nov. 17—New York — International Executives Assn. seminar: Eximbank Assistance to Exporters.

Nov. 18—Memphis—Export Opportunities Workshop, Chamber of Commerce.

Nov. 18 — Chattanooga — World Trade Council meeting, Read House.

Nov. 18-19—San Diego—California Farm Bureau Federation Seminar on International Trade, with special focus on the Tokyo Round of multilateral trade negotiations at the GATT in Geneva. For information: 415-644-7000.

Nov. 23—New York — International Executives Assn. seminar: Export Credit Insurance through FCIA.

INTERNATIONAL BUSINESS REPORTS

Canada's Packaging Market. Issued by the Maclean-Hunter Research Bureau. 50 pp. $35.

In this publication, which contains forecasts for five major producing industries, the packaging market in Canada is projected to exceed C$3 billion in 1976. In 1975 the market reached C$2.8 billion. Imports were C$438 million, exports C$217 million. Manufacturing industries in Canada consumed an estimated C$2.1 billion of packaging in 1975, with the food and beverage industries taking about 55 percent. Significant growth is anticipated to 1980.

Write: Maclean-Hunter Ltd., 481 University Ave., Toronto, Ontario, M5W 1A7. Phone 416-595-1811.

Making It Abroad: Film Guides for the Business Representative in Japan, the Middle East, etc.

Series of films designed to prepare American representatives for successful interaction in a foreign business community. By providing contemporary background and acquainting the viewer with cultural, social and economic traditions, the films help to "eliminate the barriers and problems faced by most companies in the exploration and development of foreign markets." Each film is 20 minutes in length and deals with a specific nation or area. The initial series includes Japan, Korea, Iran, the Middle East and USSR.

Write: Odyssey Productions, Inc., 123 N.W. Second Ave., Portland, Ore. 97209.

Management Development Guide. Published by the American Management Associations. 264pp. $3.75.

This is a catalog of AMA courses for the period November 1976-April 1977, plus other educational services to management.

Write: American Management Associations, 135 West 50th St., New York, N.Y. 10020.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, visits by foreign buyers and officials, and major construction and expansion projects.

Licensing, Investment Abroad

2000—URUGUAY — Firm interested in joint venture or licensing arrangement to establish company for **processing meats and vegetables** for export. Current activities include operation of radio and TV stations and modern stock breeding ranch. Rogert J. Haloua, Pres., Chamber of Commerce of the United States of America in Uruguay, Casilla de Correo 389, Montevideo. P-76833.

2085, 2869—BANGLADESH—Seeks joint venture partner with technology to **establish distillery to produce industrial alcohol and/or liquor.** Investor has over $3 million in local currency which he is willing to invest and seeks partner able to provide foreign exchange and expertise. The businessman is well established in Bangladesh, and has been given access to up to 40,000 tons of government's surplus molasses if he can use it for commercial purposes. Prospective partner could negotiate substantial majority ownership with complete control. Aziz Mohammed Bhai, Ambee Breweries Ltd., P.O. Box 957, Dacca 2. WTDR. P-76823.

2341, 2342—PORTUGAL — License or joint venture sought to produce **women's underwear and corsets.** Company currently produces high quality lingerie and lace, powernet and trimmings for local manufacturers of corsetry. It wants to diversify its production using know-how and brand name of first-class U.S. producer. Products would be marketed in Portugal and EFTA area. Established in 1957, company has 250 employees and annual sales of about $1 million. Luis Carvalho, Principal, Fabrica de Rendas Vilalva, Lda., Rua Engenheiro Frederico Ulrich, 3110 (P.O. Box 5), Moreira da Maia (Oporto). Telex, 25398 VILAVA-P; telephone 9481310. P-76834.

2731—NIGERIA — Businessman desires joint venture arrangement to establish **printing/publishing company** for production of **textbooks and other materials.** Individual was formerly employed with Office of Publications, Ministry of Information. U.S. firm would contribute equipment and technical know-how. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76835. OPIC.

2822—JAPAN—Seeks exclusive licensing agreement to produce **hydrophilic urethane foams for mixture with fertilizer to speed plant growth.** Founded 1945, firm is a leading manufacturer of tires, various rubber items, and hydrophobic urethane products. Employs 4,000, had 1975 sales of $330 million. Shunya Ueda, Dir., Technical Assessment Div., Toyo Rubber Industries, Ltd., 7-5 Chujo-cho, Ibaragi City, Osaka Prefecture 567. Telephone, Ibaragi (0726) 22-6891; telex, 524-5580. P-76836.

2851 — NEW ZEALAND — Seeks technology to manufacture **specialized industrial protective coatings** used on interior and exterior of large commercial buildings. Also surface coatings of textured or decorative nature, other than normal functional acrylics or house paints. Firm is a leader in paint and coating industry, especially marine coatings. Has plants in New Zealand and Australia, and representatives in Singapore and Fiji. T. C. Geldard, Mng. Dir., Consolidated Chemicals Ltd., P.O. Box 7-1061, Rosebank, Auckland. Phone: 883009. P-76831.

3272, 3296—FRANCE — Seeks licensing arrangement for manufacture of **insulating materials.** Firm is also interested in **processes, additives and products to manufacture cellular concrete and any gypsum or concrete building materials.** Firm owns two plants, one specializing in manufacture of insulating materials and other of building materials. Established 1967. M. Michel Alquier, Mgr. of Intermat, 21 rue des Sports, 81200 Mazamet. P-76844.

3312—MEXICO—Manufacturer of **steel bars, shapes, rounds, angles and rods for construction industry** seeks joint venture partner in conjunction with its expansion interest. Firm requests financial and technical participation, as well as machinery and equipment. Offers 49 percent equity to U.S. participant. Company wishes to expand export to U.S. and Latin American market. Firm has been active in steel manufacturing in Mexico for over 25 years. Martin C. Kreimerman, Mgr., Transformadora Central, Antigua Carretera Apachuca K. 12.5, Sta. Clara, Estado De Mexico. Telephone, 905-569-3000. P-76845.

3444, 3585—UNITED KINGDOM—Fabricator of sheet metal containers, exhaust systems, flotation tanks is interested in manufacturing **solar collectors and sheet metal components.** Company has facilities for welding, general machining and press work up to 100 tons. Employs 58. J. F. Couch, Mng. Dir., J. & J. Couch Ltd., Long Rock, Penzance, Cornwall TR20 8HS, England. P-76846.

3533 — UNITED KINGDOM — Seeks licenses to manufacture **offshore oil field equipment.** Is particularly interested in production phase or desalination equipment. Firm currently produces fabricated steel structures, navigation aids and buoys; already has licensing agreements with three U.S. firms. C. F. Jones, Mng. Dir., Speyside Engineering Co., Ltd., Pinefield Industrial Estate, Elgin 1V30 3JH, Scotland. P-76824.

3551—GERMANY—Firm seeks licensing arrangement to produce **machines, apparatus and accessories for brewery and soft drink bottling industries.** Company is closely affiliated with large German manufacturer of brewery machinery and equipment, metal crowns for glass for glass and metal containers, and technical webbings. Established in 1974. Joachim Mogler, DATOGRAF Apparatebau GmbH, Austrasse 34, D-7100 Heilbronn/Neckar. Cable, DATOGRAF: telex, 728 562; telephone, 07131/73943. P-76837.

3551, 3559 — SWITZERLAND — Seeks licenses from U.S. manufacturers of **machinery and equipment for food and chemicals industry.** Especially interested in dry-powder production and handling systems, for application in manufacture of dehydrated food such as milk, baby food, vegetables and fruit in powdered form, also for glue, paint, plastics and dried blood. Firm manufactures large vessels and containers of stainless steel. Employs 190 people, had 1975 sales in excess of $8 million and has excellent reputation and financial standing. Edwin Zimmerli, Delegate of Board, Aluminium-Schweisswerk AG, 8952 Schlieren. P-76825.

3559—GERMANY — License to produce **plastics injection molding machinery** is sought by consulting firm on behalf of client. The client company markets plastics working machinery worldwide. Has sales agents in principal German cities. W. L. Poley, Am Beisenbusch 37, 4270 Dorsten. P-76826.

3559 — UNITED KINGDOM — Seeks license or similar arrangement to manufacture **special-purpose machinery** related to present activities. Company engages in sheet metal work, steel fabrications to 15 tons, engineering production and fiberglas laminations. Established 1946, employs 40. P. Dutton, Sales Exec., Warwick & Bailey Ltd., Rockcliffe Works, Paterson St., Blackburn, England. P-76838.

3561—MEXICO — Importer and wholesaler of industrial pumping equipment is seeking licensing arrangement for manufacture of **plastic pumps for corrosive fluids.** Technical assistance is also desired. Sr. Rafael Saenz, Mgr., S.G. Maquinaria y Equipos, Pimentel #40, Mexico 20, D.F. Telephone, 905-548-5351. P-76827.

3585—GERMANY—Seeks license to produce and/or assemble **equipment used in cold/heat transfer, refrigeration and air conditioning, including heat pumps and compressors.** Firm specializes in production of freeze dryers and related equipment for pharmaceutical and chemical industries. Customers include leading German laboratories, chemical and pharmaceutical companies. Company is also interested in locating U.S. licensees for its freeze dryers, automatic dilution ap-

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

paratus and thermostats. Dipl.-Ing. Gunther Wilk, Manager, FKM Kniese Apparatebau GmbH, D-3550 Marburg, Postfach 1448. Telephone, 06420-415/417; telex, 482375. P-76828.

3662—NEW ZEALAND — Interested in licenses to manufacture **radio and television antennas** and related products. Seeks technical know-how and equipment. Presently, company produces range of 18 single or dual band receiving antennas. Also makes brackets, splitters and tap off units. Has good share of the local market. Representative of firm plans to visit U.S. in November or December to discuss licensing agreements with interested American companies. W. F. Adams, Aimco Aerials N.Z. Ltd., P.O. Box 23-104, Papatoetoe, Auckland. P-76839.

3679—INDIA — Seeks license to manufacture electronic products such as **timers, annunciators, core memories, microprocessors, cable assemblies, electronic control instruments and related products.** Is interested in establishing facility at Santa Cruz Electronic Export Processing Zone, Bombay. Needs technical know-how and marketing assistance from U.S. firm. Presently, Indian company makes relays, DC power supplies, controls for timers, alarm annunciators and control panels. Is affiliated with major Indian industrial group. Firm's director plans to visit U.S. in early November for discussions with interested American companies. His address: K. J. Sheth, c/o Niru J. Sheth, 7930 Walnut Place, Liverpool, New York 13088; telephone 315-652-8541. Indian concern is Hakotronics Private Ltd., Sussex Road, Bombay 400 027. P-76840. OPIC.

3714 — AUSTRALIA — Seeks license to manufacture and market **aluminum alloy automobile wheels.** Plans produce 5,000 units annually. Established 1951, firm presently makes automobile wheels. John L. H. Green, Mng. Dir., Victorian Castalloy Pty. Ltd., 12 Kily St., Coburg, Victoria 3058. Wheels must conform to Australia design regulations. Information on standard 1638 available from Standards Association of Australia, 191 Royal Parade, Victoria 3052. P-76841.

3831—INDIA—Seeks license to manufacture **road paving machinery, compactor concrete and asphalt paving equipment.** Bulk of production would be exported, primarily to Kuwait. An Indian company has reportedly received contract to build new town and will require road paving machines and other construction equipment. The Indian concern presently produces road rollers, cranes and structural fabrications. Its managing director plans to visit U.S. in November to discuss licensing arrangements with interested American companies. R. J. Shahaney, Mng. Dir., Jessop & Co., 63 Netaji Subhas Road, Calcutta 700001. P-76829. OPIC.

3944—PHILIPPINES — Seeks licensing agreements for manufacture of model **toys and kits,** made of either metal or wood. Prospective partner will be expected to provide technical know-how and marketing outlets for production. Local firm may participate in providing production facilities. Firm is one of leading car dealers in Philippines. Edward W. Yu, Gen. Mgr., Car Master Inc., U.N. Ave. and San Marcelino St., Ermita, Manila. P-76842. OPIC.

3949, 3589—ITALY—Seeks contacts with manufacturers of **swimming pools and accessories** for representation in Saudi Arabia leading to possible joint venture agreement to construct residential and hotel swimming pools. Firms expressing interest should be familiar with design and construction of pools. Commercial Services International, VIA Vincenzo Monti 56, Milan. P-76830.

7997—ISRAEL—U.S. company desired to furnish capital, machinery and equipment and technical and managerial assistance for building and operating **sports and recreation club.** Club will be located on 17-acre site in newly developed area near Netanya; estimated cost of project, $1.5 million. Country club will include swimming pools; tennis, basketball, handball and table tennis courts; restaurants. Additional information from Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76843. OPIC.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Department's Export Administration Regulations. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Anthracite coal

1111XXX, 1211XXX—INDIA—Anthracite coke (specifications: moisture max. 0.2%, volatile matters max. 0.3%; ash max. 5%; sulphur 1.9%; real density 1.78 GM/CC; electrical resistivity 0.05 obm-in.; particle size 99% 12-16 mm.). Requirement: 3,000 mt (esti. value $470,000) annually. Metallurgical coke (specifications: moisture max. 8%; volatile matters max. 2.5%; ash max. 12%; grain size less than 16mm). Requirement: 1500 mt (esti. value $130,000) annually. Above items to be packed in jute or gunny bags. Cokes will be molded & baked at temperature of 1300 degrees centigrade to form carbon blocks for use as linings in blast furnace in steel plant, cathodes in aluminum industry. Buyer in process of obtaining import permit from govt. Reply to—Dr. R. Maheshwari, VP (Technical), Siddharth Carbochem Products Ltd., Plot No. 10, Off Dr. Moses Road, Worli, Bombay 400 018. Cable: Kores Carbo; tel: 370686.

General contractors

● **154XXXX—INDIA**—Hindustan Latex

Ltd. (HL) is planning to establish a new modern automatic condom producing plant to meet growing demand of family planning development in India. Program calls for supply of technical know-how/machinery/materials as well as training of Indian personnel. Firm has identified following categories of sophisticated equipment to be imported: compounding equipment; molding machine; electronic pin hole testing machine; and laboratory equipment. Specifications of condoms used in India and details of equipment required for new project available from Dept. of Commerce, TOP, Rm 2321, Washington, D.C. 20230, 202-377-2251. Bid deadline Dec. 1, at Hindustan Latex Ltd. (HL), T.C. 4/485 Kowdiar, Trivandrum 695003, Kerala State.

Household furniture

• **25100, 25300, 34200, 35200, 35500, 35800, 36600, 38100, 39300, 39400—OMAN**—The Government, with financial aid from IBRD, is implementing an educational project requiring procurement of furniture, equipment and supplies, for a primary teacher institute, agricultural training institute, and two skill training schools. Value estimated $400,000 for furniture and $600,000 for equipment and educational supplies. Tender expected to be called in February 1977. Manufacturers and suppliers must register by providing full information: address, nationality and character (supplier, manufacturer or agent) of firm and country of registry; financial position; capabilities and work capacity in terms of personnel, plans and equipment; local services and representation; experience in supplying and servicing goods to Oman and countries other than their own with details and values of recent supplies to educational institutions; packages or sub-packages under which they will bid and therefore request registration for bidding purposes. Reference to World Bank Education Project should be made on envelope. Countries should have local sponsoring representative prior to carrying on business in Sultanate. Deadline for registration Nov. 15, at Tender Board (IBRD Education Project), P.O. Box 787, Muscat.

Fabricated rubber products

3069585—PERU—Four life boats, for 15 persons ea., inflatable, orange color. Well-estab., small, agency business covering Peru & other Andean Pact countries, in urgent need of quotes for above boats. Quotes should be phoned or telexed asap. Well-regarded commercially, has experience doing business with U.S. suppliers. Handles industrial equip., industrial raw materials, arms, & related items. Call or cable—Martin Sardon, Mgr., Holandina S.A., A. Miro Quesada 247, Of. 209, Lima 1. Cable Holandina; phone 28-3713; telex 25659-Holandin.

Leather products

• **31610 — ZAMBIA** — Tender for 2,000 brown leather briefcases. Tenderers must present sample. Deadline Nov. 12. Tender document #MF/GS/439 available from Consumer Goods and Services Division, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4236.

Steel mill products

• **33100—BOLIVIA**—422,000 kilos galvanized steel pipe and fittings, ¼ to 1". Tender No. 3/76-2/76; bid deadline Nov. 4. Servicio de Agua Potable, Alcantanillado y Desagues Pluviales, Casilla 1647, Cochabamba. Specifications available from above address at $50.

• **33100—GHANA**—10,530 ft. ductile iron pressure pipes, outside diameter 16 inch; complete with valves, fittings and accessories for water supply project. Tender No. WWD-3334/1; bid deadline Nov. 25. Ghana Supply Commission, P.O. Box M-35, Accra. Specifications available from Iron & Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2438.

• **33100—SYRIA**—Seamless line pipe, 4¼ inches diameter, wall thickness 4mm, length 11-13 meters, hot finished, API standard 4LX grade X42. Tender No. 6569; bid deadline Nov. 3. Syrian Petroleum Co., Mutanabi St., Damascus. Tender documents available at above address.

Rolling, drawing, & extruding of nonferrous metals

• **33500—INDIA** — 132 power cables for transmission and distribution project. Tender No. IDA-BSEB/3; bid deadline Nov. 23. Bihar State Electricity Board, Vidyut Bhawan, Patna 800001, Bihar. Tender documents available from above address at RS 100 ($11.30).

Special industrial machinery

35595—TURKEY—Clay-working machinery & equipment and parts (brick, tile, and ceramics). Estab. 1953 as individual enterprise but Korkut Beriker, managing dir. & partner, changed it to partnership in 1955. In several plants, mfgrs. & markets clay products such as brick blocks, drain tile & roofing tile & produces lumber & finger-joint stock for sash & door producers. Now wants buy complete line of machinery, as well as technical know-how, for marble/resin floor & wall tiles. Desired end product is smooth finished tile, cut to size according to requirement (standard 40/60 cm) for use as floor & wall covering composed of slices of marble (15 mm thick), marble chips, dust & polyester or epoxy resin as filler material. Line production capacity should be at least 400 & not more than 1000 sq. meters/8-hr. shift. Financial & trading condition of firm considered excellent. Recommended highly as trade connection. Wishes offers of U.S. technology & equip. to estab. tile factory using marble chips & polyester wastes as raw materials. States process exists in U.S. & would like to buy American, though has Italian & German offers. Would be interested in second line if first is successful. Solidly established dynamic company likely to grow rapidly in booming construction environment. While would greatly appreciate financing offer, it is not a precondition. Post believes that equip. package price tag in $350,000 range might be competitive. Reply to—Korkut Beriker, Gen. Mgr., Kil-Toprak Ve Ticaret, Ltd., Adana. Cable 62294 Kito Tr; Tel 13097, 12245.

Household appliances

• **363XXXX—ALGERIA**—Gas household appliances—36,000 stoves; 50,000 gas rings; 90,000 direct fire water heaters. Also 40,000 gas radiators. All to operate on natural gas. Bid deadline Nov. 30, to remain valid six months. Offer to be f.o.b. and c. and f., and to include technical literature. Partial offer acceptable. French required; all specifications metric. Submit offers by registered mail to Direction Technico-Commerciale, Sonelgaz, 2 Blvd. Salah Bouakouir, Algiers; Telex 52898, Cable Soneg DG Alger. Specifications available at Consumer Goods and Services Division, Room 1104, U.S. Department of Commerce, Washington, D.C.; 202-377-2923.

Electrical lighting, wiring equipment

• **36410—GREECE** — Lamps, mercury-iodine, 2,000 W., 100 units; high-pressure mercury, 250 W., 220 V., 30 units. Bid deadline Nov. 11. Submit bid to Civil Aviation Authority, Financial and Supplying Division, Procurement and Expense Section, 1 King George Ave., Hellinikon, Athens. Specifications/terms of sale available at Consumer Goods and Services Division, Room 1104, U.S. Department of Commerce, Washington, D.C.; 202-377-2923.

Communications equipment

• **36610 — COLOMBIA** — Empresa Nacional de Telecomunicaciones (TELECOM), Calle 23, No. 13-49, Piso 7, Bogota, has issued tender no. 084/76 for supply of automatic private telephone exchange, PABX type. Bid deadline Nov. 30. Potential suppliers must submit proposals through authorized local agents/representatives. Copy of specifications available from above address for 5,000 pesos (US$141) for first copy and 2,500 pesos (US$70) each additional copy.

• **36620—GREECE** — Hellenic Civil Aviation Authority, Procurement & Expense Section, 1 King George Ave., Hellinikon, Athens, has issued tender no. EX. 6/76 for supply of 46 VHF transceivers, 50 W; 8 VHF multichannel transceivers, 100 W; 10 VHF multichannel transceivers, 20 W; 36 multichannel emergency transceivers, 20 W. Bid deadline Nov. 27. Copy of specifications available free from above address.

Engineering, laboratory, scientific, research instruments

• **38110—INDIA**—Director General, Posts & Telegraphs (MMD Section), Parliament St., New Delhi 110001, has issued tender No. 8-17/76-MMD for supply of two clean-room sampling kits, one manual and one automatic, with accessories and consumable spare parts. Bid deadline Dec. 15. Copy of specifications available from Asst. Dir. General (Imports), Room No. 514, P&T Directorate, New Delhi, for US$2.74.

Instruments for measurement, analysis and control

• **38240—INDIA** — Bombay Municipal Corp. has issued tender for supply of 1116 watermeters, varying in size from 80 mm. to 450 mm., as follows: 500 meters 80 mm. size; 320 meters 100 mm. size; 200 meters 150 mm. size; 70 meters 200 m. size; 5 meters 250 mm. size; 15 meters 300 mm. size; 6 meters 450 mm. size. Bid deadline Dec. 9. Copy of specifications available for RS. 150 (Approx US$23) plus $30 for posts and taxes, from Chief Engineer (Common Services), Water Supply and Sewerage Dept., Municipal Head Office Extension Bldg., Mahapalika Marg, Bombay 400 001.

Surgical, medical, dental instruments

• **38410—ECUADOR** — Secretaria del Comite de Licitaciones del Ministerio,

Ministerio de Salud, Juan Larrea 444, Quito, has issued tender no. 5-76-MSP for supply of equipment, furniture and dry goods for new San Juan de Dios Hospital in Loja, which will contain 118 beds. Bid deadline Nov. 30. Firms must have Ecuadorean agent (citizen or resident) in order to qualify for Ecuadorean Government contracts. Copy of specifications available from above adress for S/15,000 (US$550), not refundable. Documents available only in person, not by mail.

Scrap & waste

5093XXX—KOREA — Aluminum scrap—spec 6063; monthly requirement, 150 to 200 M/T; est. c&f prices $500/ton. Polyvinyl chloride (pvc) & polypropylene (pp) plastic scrap—monthly requirement, 50 M/T pvc scrap resin & 200 M/T pp scrap resins; est. c&f price $150/ton. Mfr. of venetian blinds for domestic consumption & export. Seeks supply for pvc & pp plastic scrap resins for immediate use. Reply ASAP to—W. H. Chung, Pres., Daeil (Korea) Corp., CPO Box 5329, Seoul 100. Cable: Phoebus, Seoul; tel 27-3926.

50930XX—LIBERIA — Country's largest iron ore mine (partly owned by Bethlehem Steel) requires rags for wiping and cleaning machinery. Firm's annual sales well in excess $100 million. Price quotes desired immediately. Reply to—A. J. Falk, Div. Head, Division of Procurement & Supplies, Lamco Joint Venture Operating Co., PO Box 69, Roberts International Airport. Cable: Lamco; telex: 203 Lamco Monrovia; phone: 21899.

5093XXX—SPAIN—Iron scrap, 1st, 2nd & special qualities. Firm anticipates importing from 100,000 to 500,000 tons a year of iron & stainless steel scrap. Fersam, S.A. is manufacturer of farm machinery & equipment & requires scrap for its own use as well as for resale to others. Cites Banco De Vizcaya & Banco De Bilbao as finan. ref. Would like to receive quotations c.i.f. Spanish port. Call or cable—Juan Morales, Commercial Dir., Fersam, S.A., Avda. Cruz Campo, 22 Sevilla (5). Tel: 954/253-132.

5093XXX—MEXICO—Scrap lead from 4,500 batteries per month. Quotations requested c.i.f. Mexicali or Tijuana. Local battery mfr. wishes to import lead plates from old batteries or entire old battery units for recycling. Co. appears to be satisfactory trade contact. Reply to Gene Bordson, Pres., Acumuladores B.A., S.A., Apartado Postal 6-601, Guadalajara, Jalisco. Tel.: 301992.

Antique, secondhand stores

5931XXX—BOLIVIA — Tracklaying tractors, used. Reply to: Empresa Industrial Montalvo S.R.L., Manuel Montalvo, Casilla 2770, La Paz.

5931XXX—SIERRA LEONE—Household used & reconditioned refrigerators & freezers; used carpets & rugs; used & reconditioned air conditioners; used combine harvesters, reconditioned caterpillars & bulldozers (Model D7-D8 or equal). Buyer requests 180 days credit terms. Buyer highly influential in local business circles. Reply to Salim N. Daklallah, 6 Wallace Johnson St., Freetown. Cable: DAKLALLAS, Freetown.

Business services

399XXX—SIERRA LEONE — Government requires philatelic adviser from internationally recognized philatelic companies with world-wide experience philatelic publicity and distribution. Reply to—Philatelic Adviser to Government of Sierra Leone Ministry of Transport and Communications, Ministerial Bldg., George St., Freetown.

Items Authorized By Greece For Purchase Summarized

Tables summarizing categories of commodities which the Greek Government has authorized for procurement under the purchase program operated by the Ministry of Commerce for government and quasi-governmental agencies during calendar 1976 are available from U.S. Department of Commerce, Trade Opportunities Program, Rm. 2323, Washington, D.C. 20230.

Principal categories are: plant equipment & machinery, $60.1 million; telecommunications equipment, $46.1 million; transportation equipment, $45.7 million; scientific instruments, $25.3 million; parts & accessories, $19.8 million; medical supplies & equipment, $15.6 million; electrical equipment, $12.2 million; chemicals, $11.5 million; metal products, $7.8 million; railway equipment, $7.6 million; paper products, $5.7 million; POL products, $5.7 million; photographic supplies, $4.3 million. Government of Greece procurement will be through public tenders to be issued during 1976 and early 1977. Tenders for all items covered in the purchase program will be open to international bidders.

Israeli Firm Needs Generator

An Israeli firm is seeking a diesel generator for a standby power station. The generator is to have a high voltage dist. of 22 kv, 3 wire; a medium voltage of 3.3 kv, 3 wire; low voltage of 400/231v, 4 wire; and a control voltage of 220v, 50hz single phase.

Interested parties contact: N. Wiegler, Project Manager, Electrochemical Industries (Frutarom) Ltd., P.O. Box 1929, Haifa; cable: Electrokem; telex: 46289 EIF IL; phone: 04-912231. For further details on specifications contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441. Also please send copy of correspondence to Pete Zantal. OPIC.

Algeria Will Buy Harvesters

Algeria's Ministry of Agriculture is seeking to make an initial purchase of 50 dry vegetable harvesters (of the type used for lentils, chickpeas and dry beans). Tenders are not yet available; however, U.S. firms interested in receiving further information regarding this opportunity should forward their brochures and price lists to: Dave Hill, CAGNE/BIC, Room 3015, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4441.

Iraq Seeking U.S. Suppliers

An Iraqi firm is seeking U.S. suppliers of sunflower harvesting equipment and machinery for removing sunflower seeds from bulbs. Tender not yet available; however, U.S. firms interested in receiving further information regarding this opportunity should contact: Dave Hill, CAGNE/BIC, Room 3015, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Fabricated rubber products

3069891—ISRAEL — Rubber compounds, specifically rubber chlorinated natural & synthetic. Requests f.o.b. quotations; payments c.a.d. basis. Estab. 1975. Commission agent, importer & exporter of industrial chemicals, raw materials & machinery for plastic industry. Imports plastic process machinery & chemicals from U.S. & Europe. Main customers are plastic industries & kibbutzin. Exports locally mfrd. solar heaters, rubber tubing & decorative pressed metals & medals. Employs 3. Reply to Elan Lava, Mgr., Lavachem, 18 Rashi St., Tel Aviv. Telex 32470 Coin IL-Lavachem; tel. 03-282525.

Pottery, related products

3261051—UNITED KINGDOM — China, earthenware plumbing fixtures. Natl. distr. of plumbing goods specializing in shower valves & mixers, water taps, kitchen furniture, plumbers brassware, stainless steel sink tops, etc. Presently imports shower valves from France; sink mixers from Finland; shower mixers from Germany. Reply to—D. H. Barrett, Dir., Faucet Sales Ltd., Douglas Works, Pontygwindy Industrial Estate, Caerphilly, Glamorgan CF8 2XS. Tel. (0222) 885396; telex 497330.

Rolling, drawing, extruding of nonferrous metals

3351XXX—SWEDEN—Non-ferrous metals, rolled & drawn—unalloyed copper bars & shapes & nonelectrical rod; copper base alloy rod, bar, and shapes, unalloyed copper flat products (sheet, strip, plate, foil); copper base alloy flat products (sheet, strip, plate & foil), incl. military cups & discs (net weight); unalloyed copper pipe & tube and copper-base alloy pipe & tube (not plumbing); aluminum plate; plain aluminum foil. Subsidiary of Beijerinvest AB, which ranks as number 18 among Sweden's largest companies. Metals div. which imports & sells products produced primarily in Europe, is now seeking U.S. suppliers of non-ferrous products. Ulf Caap, manager of div., is planning to visit U.S. this fall to meet with producers of nonferrous metals interested in adding Scandinavia to their markets. Reply ASAP to—Ulf Caap, G & L Beijer Import & Export AB, Fack, 103 80 Stockholm. Telex 10664; Tel 08/22 82 60.

3356998, 3999998—THAILAND — Blank coin, cupronickel-clad copper and copper core visible at edge. Copper core 80%, cupronickel 10% on each side. Rimmed dia. 29.5 mm., thickness before rimming 1.88 mm., weight 12 grams ea. Requirements: 3 million coins. Requests: 100 sample coins via air-freight. C.i.f. Bangkok and/or f.o.b. New York prices. Firm is one of leading govt. bidders in Thailand. Urgently needs above for tender sales to Treasury Dept. & is looking for reliable U.S. supplier. Interested U.S. suppliers requested, if possible, to offer by cable. WTDR being up-dated. Reply to—Prasong Chantayasakorn, Mng. Dir.,

P.S.T. Marketing Co., Ltd., 133/9-10 Rajprarob Rd., Makkasan, Bangkok. Cable Issuply; tel. 2514212, 2516289.

Nonferrous foundries

3369233—UNITED KINGDOM — Magnesium anodes for cathodic protection of steel structures such as water tanks & heaters, also for marine & seaboard applications. Markets electro-mechanical technology to industry & is particularly involved with selling components to power generation, oil & gas industries. Seeks additional products for expansion & currently represents Italian firm for carbon & graphite materials & Japanese firm for motors. Private co. estab. 1973; 10 employees & annual sales volume 100,000 pounds. Interested in either agency or distribution arrangements. Reply to—Raymond J. Seago. Mng. Dir., Seatech Intl. Ltd., Trinity St., Halstead, Essex CO9 3JD. Tel 07874-5031; telex 21792 REF: 803; cable Falcon, Hedingham, Essex.

Special industrial machinery

3559589—UNITED KINGDOM—Pharmaceutical machinery. Mfrs. & importers of automatic bagging machines, & capsule filling & washing equip. One U.S. & one Italian firm represented. 34 employees. Annual sales 467,000 pounds. Mfrs. wide range of bagging machines that operate from pre-made stack of wicketed bags. Machines are widely used in bakery, frozen food, paper & industrial produce industries, & more than 70% of output is exported. Wishes expand range through contact with U.S. mfrs. & is keen to take on additional representation with view to mfg. under license. Reply to—L. C. Wratten, Sales Dir., Pak International, Edmunds Works, Fishergate, Norwich NR3 1SP. Tel 0603-21358.

General industrial machinery

3569998—FRANCE — Surface treatment machinery. Medium size co. specializing in mfg. & importing surface treatment chemicals. Total sales 1975 — FF 50 million. Staff 300. Fin. ref.—Banque Populaire de la Loire, St. Etienne. Commercial network covers France. Branches in several European countries. Reply to—Pierre Jacques Hulewicz, Gen. Mgr., Laboratories Geig, 19 Rue Etienne Dolet, 42000—St. Etienne. Phone (77) 32.81.10.

Office, computing, accounting machines

35732XX, 3674XXX, 38321XX—SWEDEN – Special purpose terminals; digital communications line interface equipment such as modems, etc.; diodes and rectifiers; light sensitive semiconductor devices, zener diodes, and other semiconduct devices; filters (except microwave), infrared, ultraviolet, etc., excluding optical lenses; ph electrodes and meters; electro-optical test equipment; electro-optical components, except opthalmic and photographic. Large, financially sound company has share capital of Skr 21 million, annual turnover of approx. Skr 160 million, and 1,800 employees. Affiliated with internationally known Telefon Ab L M Ericsson. Highly recommended trade contact. Reply to Hans Edlund, Svenska Radio AB, Fack, S-163 00 Spanga. Telex: 10094.

Service industry machines

35852XX—SWEDEN Heat pumps, single package; split systems with precharged lines; split systems, air conditioning; condensing units. Must be 220 V, 50 hz. Small but well established distr. for some large swedish importers & agents in air treatment field. Wishes expand program & seeking direct contact with U.S. suppliers. According to local credit sources firm meets business obligations satisfactorily & is recommended as trade contact. Reply to Allan Forsberg, ABG Komfortservice AB, Tomtebogatan 35, S-113 38 Stockholm. Tel. 08/34 50 40.

Electrical industrial apparatus

3624156 — DOMINICAN REPUBLIC — Graphite electrodes, 9 in. x 72 in. long, with tapered nipples, current capacity 10,000 amps; 12 in. x 72 in. long, with current capacity, 15,000 amps; 14 in. x 72 in. long, with current capacity 18,000 amps. Estab. recently to engage in commission agency business. Has been buying mainly from Singapore, Taiwan & Mexico, but wishes estab. contact with U.S. exporters. Reply to Julio A. Brea, Agencia Latina, Apto. 307, Edificio Martinez, Ave. 27 de Febrero Esq. Calle 5, Santo Domingo. Cable Latina; tel 567-3088.

Household appliances

3636021—UNITED KINGDOM—Domestic sewing machines (low cost). Firm principally in contract furniture business but also handles consumer goods/leisure products. Seeking new/novel products to add to present range. Reply to P. Gerner, Abbots Furniture, 52 Knoll Dr., London N.14. Tel (01) 368-0698; telex 21433.

Electronic components, accessories

3679071—UNITED KINGDOM—Reactive mircowave components of all types. Estab. 1962, employs 16. Operates as distr./importer/exporter of test & measuring instruments, microwave & general components & telecommunication equip. Current annual sales vol. $1 million. Represents 6 U.S. companies. WTDR 8/76. Reply to Phillip Westwood, Mng. Dir., Wessex Electronics Ltd., Stover Trading Estate, Yate, Briston BS17 5QP. Tel 0454-314074; telex 449160; cable Weselect Briston.

Optical instruments, lenses

3832112—AUSTRALIA—Plasma arc analysis equip. for materials analysis. Interested in expanding present lines. Excl. agent/distr. Reply to—Fred W. Blake, Mgr., ANAC (Australia) Pty. Ltd., P.O. Box 102, Sutherland, N.S.W. 2232, Telex AA22113; tel 546 3116.

Future Construction Abroad

ECUADOR — Guayas Province Acting Governor Rodolfo Kronfle announced that Guayas Province Transit Commission, Guayaquil, is interested in construction of modern **passenger and freight vehicle terminal** to be located in or near Guayaquil. Tender specifications inviting national and foreign construction firms to participate will be announced soon as made public.

ALGERIA—State Railways Corporation is seeking qualified firms for study and construction of 200-km **railway** between Tebessa and Aim M'Lils. Interested firms should send references describing past experience and resources to: Monsieur Le Chef de Services des Etudes Technico-Economiques, Direction Generale, SNTF, 21-23 Blvd., Mohamed V, Algiers; Telex: 52851; Cable: SNCFA Alger. Correspondence in French required. For additional information contact Pete Zantal, CAGNE, BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441. Also, please send copy of all correspondence to Pete Zantal.

LIBYA—British firm of Wolf Barry & Partners is seeking U.S. firms interested in submitting bids for design, construction, and supervision of a prestressed concrete **road bridge** in Tripoli. U.S. firms would be subcontractor to prime contractor already working on bridge. The bridge is to connect Port of Tripoli to new municipality road system and all components are to be of prestressed concrete. For further information contact: Dave Hill, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230; phone, 202-377-4441.

SYRIA Ministry of Agriculture and Agrarian Reform, Directorate of Soils, is inviting foreign bids for **preparation and study of maps, reports on physiographic divisions, surface draining, patterns, soils, land use, distribution of crops and land classification**, using data and photographs from remote sensors (ERTS), aerial photos using multispectral scanner and other sources. Maps and reports to be prepared from data using computer analysis. Extension of Aug. 28 deadline likely; competent U.S. firms are therefore encouraged to contact soonest Directorate of Soils, Ministry of Agriculture and Agrarian Reform, Jabri Sq., Damascus. Firms further requested to contact U.S. Embassy, Damascus.

ALGERIA—Office National des Alimants du Betail (ONAB) requests quotation for delivery of 4,000-5,000 cartons of **hatching eggs** per week (360 eggs/carton). Would like quotations both f.o.b. and c.i.f. air freight. Would like to enter into regular arrangement with one or two companies. ONAB has previously requested quotes from U.S. firms and found them high. Failure to secure satisfactory source resulted in this second request, with hope that U.S. firms can make better offer. Interested firms may telex directly Mr. Djemman or Mr. Rahad, ONAB ALGER 52913. Firms also requested to inform U.S. Embassy, Algiers.

KUWAIT—Kuwait Hotels Co. (KHC), owner of Kuwait Hilton, is seeking foreign partners to set up **catering services for large construction and tourism projects** in Kuwait. Interested U.S. firms are encouraged to contact A. Grandinetti, Kuwait Hotels Co., P.O. Box 833; telephone: 546-088, telex: 2500 KHC KT.

SOMALI DEMOCRATIC REPUBLIC—Government of Abu Dhabi has invited tenders for construction of 130km **road** between Burao and Berbera in northern part of Somali Democratic Republic, to be financed by Government of Abu Dhabi. Contract documents available for examination at Sauti Consulting Engineers, Via P. Mascagni, 160 Rome, Italy, P.O. Box 625; or Public Works Department

Compound, Desmal St., Abu Dhabi, UAE; or P.O. Box 1280, Mogadiscio, Somali Democratic Republic. Contract documents may be obtained at any of above addresses upon payment of UAE Dirhams 4,000 (approximately $1,000 US). Closing date for submittal of tenders Jan. 10. For further details contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441. Please send copy of correspondence to Pete Zantal.

ISRAEL — Electrochemical Industries (Frutarom) Ltd. of Haifa is seeking **diesel generators** for use as stand-by power supply. As the total required power is 2.2, 3.5, or 5 MW, plant may consist of a number of units. Contractors may propose 2, 3, 4 units, or two "tandem" twin sets and shall provide a study to show most economical execution, considering price, safety, maintenance, etc. In addition, supplier should have local agent or representative in Israel who has facilities for proper servicing of equipment. Send proposals to: N. Wiegler, Project Manager, Electrochemical Industries (Frutarom) Ltd., P.O. Box 1929, Haifa; Cable: ELECTROKEM; Telex: 46289 EIF IL; Phone: 04-912231. For additional information contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Wash., D.C. 20230; 202-377-4441. Also, please send copy of correspondence to Pete Zantal. OPIC.

PAKISTAN—Pakistan Steel Mills Corp. (PASMIC), State Life Bldg. No. 2 OFF. II., Chundrigak Rd., Karachi, plans on calling for bids for **sewage treatment plant, refrigeration plant and continuous casting plant** in near future. No details yet on capacity of these plants, but all infrastructure for Karachi Steel Mill is being designed around eventual 2 million-ton capacity steel mill. Projected completion date for phase one of steel mill is December 1978. PASMIC is looking for financing. OPIC.

ECUADOR—Centro De Rahabilitacion de Manabi—CRM (Center for rehabilitation of Manabi Province), Portoviejo, handed over for consideration and approval to Instituto Ecuadoriano De Obras Sanitarias—IEOS (Ecuador Institute for Sanitation Construction Works), Quito, SRM-conducted feasibility studies on **sewage system** for city of Chone, pop. 50,000, Manabi Province. IEOS will announce call for bids later.

NEPAL—Department of Mines & Geology is presently conducting feasibility study for establishment of **silica-line brick plant** with capacity of 10 million bricks per annum. Director General of Department wishes to establish contact with U.S. designers/suppliers. Interested parties contact Department of Mines & Geology, Ministry of Industry & Commerce, Kathmandu. OPIC.

COLOMBIA TELECOM, Empresa Nacional de Telecomunicaciones, investment program for 1977-1982 totals approx. U.S.$426 million. Includes **US$114 million project**, of which US$60 million requested from IBRD. Loan will be called IBRD-V and will probably cover: extension of microwave truck system (400 percent increase over existing capacity); extension of long distance service through expansion of existing interurban central exchanges and acquisition of new exchanges (440 percent increase); increase of local automatic telephone services from 42,000 to 162,000 subscribers, through installation of 97 new central exchanges and expansion of 26 existing exchanges; expansion of telegraph-telex service into new localities, linking them with intermediate cities (242 percent increase). It is expected that telex subscribers will increase from 3,300 to 11,300 by end of 1982. To participate, firms must be preregistered with TELECOM, Empresa Nacional de Telecomunicaciones, Calle 23 No. 13-49 Piso 6, Bogota D.E.

MOROCCO—Bidders sought for **replotting of Plaine et Basses Collines** (Plain and Shallow Hills) in Loukkos Perimeter (12,000 hectares). Project will be financed by Moroccan Central Government investment budget. Specifications and bidding file obtainable from Monsieur le Directeur de l'ORMVAL, B.P. 48, Ksar el Kebir, against payment of DH 200 (approximately U.S. $45) plus postage through certified check to order of Monsieur l'Agent Comptable de l'ORMVAL. To visit area, firms invited to contact Office Regional de Mise en Valeur Agricole of Loukkos Region (ORMVAL) at least one week in advance. Closing date Dec. 8. Correspondence and bids in French preferred. OPIC.

TUNISIA—Following equipment urgently needed to pump water from wells drilled in southern Tunisia to supply drinking water for tourist resorts on Jerba and in Zarzis: vertical multicellular pump (SIC 3561200); diesel internal combustion engine (3519310); electric motor (3621100); pressure and level gauges (3829146). Project being financed by German bank Kreditanstalt fur Wiederaufbau. Specifications and tender documents may be purchased from SONEDE, Service Marches, 23 Rue Nehru, Montfleury, Tunis, for equivalent of 30 Tunisian dinars. Bank checks not acceptable for tender documents: use bank transfer or international money order. Closing date Dec. 3. OPIC.

OMAN — Government project for construction of 19 electric power plants in Northern Oman has created opportunity for U.S. firm to maintain and operate **diesel power stations and electric power lines.** Engineering work should be well advanced by Autumn 1977. Each will produce 930 kilowatts, and distribution will be 12 kilometers per station. Main engineering contractor is British firm Hawker-Siddley, but a number of firms in Oman are obtaining subcontracts. Lebanese firm, Khatib and Alami, has been named as consultant and seeks U.S. partner to perform much operational maintenance. Firms interested contact directly Khalis Najar, Khatib and Alami, P.O. Box 3238, Ruwi. Please send copy of correspondence to Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441.

EGYPT — Qattara Project Authority is seeking experienced contractor for execution of **test tunnel and borings** in connection with feasibility study for Qattara Hydroelectric Power Project. Contractors may offer services in following two lots, jointly or separately: Lot A: Approximately 10 geotechnic borehole investigations, fully cored, of depths between 60 and 800 meters. In addition to rock sampling, permeability tests, pump tests and groundwater level observations, extensive geophysical borehole logging for which an experienced subcontractor required is included. Lot B: Vertical shaft of 200 meters in depth and 4 meters in diameter with horizontal test tunnel approximately 45 meters in length. Horizontal tunnel to have sections of four meters and eight meters in diameter; geomechanic and soil test, test pits, etc. will be required. Tender documents can be bought for 300 deutschemarks per copy from: Joint Venture Qattara, c/o Lahmeyer International GMBH, Lyoner Strassee 22, P.O. Box 710230, 6000 Frankfurt(Main) 71, Telex: 4 13478 LID; or Joint Venture Qattara, Cairo Branch Office, 8, Yanbo'o St., Dokki, Cairo, P.O. Box 275 Cairo; Telex: 2382 JVG UN. Tenders will be received until Nov. 22, by: The Chairman, Qattara Project Authority, 18, Hoda Sharawi St., Bab el Louk, Cairo. For further information contact: Pete Zantal, U.S. Dept. of Commerce, BIC/CAGNE, Washington, D.C. 20230; 202-377-4441. OPIC.

UNITED ARAB EMIRATES Water and Electricity Department of Abu Dhabi is seeking qualified firms for design, commissioning and handing over of **132 kv grid network.** Prospective tenderers should apply for tender documents by letter or telex to Water and Electricity Department, P.O. Box 219, Abu Dhabi, United Arab Emirates; Telex: 2369 MAKATHARBA AH. Request for documents must be accompanied by non-refundable fee. For further information contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441. Closing date for proposals Jan. 12.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Visiting Buyers & Officials

JAPAN—Yukinobu Morimoto of Osaka Kobe, is interested in contacting U.S. manufacturers of **wall paper printing machines, and embossing, pasting and waxing machines.** He may be contacted through Theresa E. Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

AUSTRALIA—Magda Burger of Sydney is interested in hearing from U.S. manufacturers of **sewing and cutting machines and systems for mass production of young women's styles, evening and bridesmaids dresses as well as made-up dresses.** She plans to be in the United States in mid-January, and may be contacted through Theresa E. Rettig, 202-377-3265.

NORWAY—A group of about 20 Norwegians plans to attend the International Pollution Expo in Anaheim, Calif. in November. They are interested in visiting sites, particularly in the Los Angeles area, having **pollution control systems.** Their interest covers solid waste and recycling systems, sewage and drinking water control systems, filtration processes, chlorine and chalk dosing systems, filtration systems and equipment for dust removal in concrete and plastics production plants, water control equipment and instrumentation, water and air control equipment for metalworking industry as well as gas emissions controls for welding plants. For further information contact Theresa E. Rettig, Room 2322, U.S. Department of Commerce, Foreign Buyer Program, Washington, D.C. 20230, 202-377-3265.

AFGHANISTAN—Rahim Majid of Kabul is interested in contacting U.S. manufacturers of **cold storage equipment, machinery for the production of poplin gray goods, carpet-thread spinning and dyeing machinery**; and receiving information concerning **processes for dehydration of vegetables and fruit and vegetable juices.** He may be contacted through Theresa E. Rettig, 202-377-3265.

SWEDEN—Ulf Caap of Stockholm will be in the U.S. in mid-November and is interested in hearing from manufacturers of **ferrous products such as copper and copper alloys, aluminum and aluminum semi-products and virgin and remelted material.** Theresa E. Rettig, 202-377-3265.

AUSTRALIA—Alan F. Murray of Sydney is interested in **stiles and rungs for fiberglass ladders.** He is scheduled to be in U.S. now and may be reached through Theresa E. Rettig, 202-377-3265.

AUSTRALIA—Robert Kempthorne of Sydney is planning to visit the United States in December and is interested in representing manufacturers of **educational toys.** Theresa E. Rettig, 202-377-3265.

VENEZUELA—A delegation of five Venezuelan buyers will attend Graph Expo 76 specifically to purchase American-made **computerized cold phototypesetting equipment** for use in printing telephone directories. Buyers represent Caveguias, a Venezuelan corporation engaged in printing telephone directories for national telephone company. Group hopes to make final decision to purchase equipment during visit, Oct. 24 thru 31. They would like to visit companies engaged in printing telephone directories in the New York area, including telephone companies (if any) which print their own directories, as well as New York manufacturers of computerized phototypesetting equipment which may not participate in Graph-Expo 76. Group is willing to extend visit beyond end of October if necessary to accomplish all business objectives. American firms interested in meeting these buyers should contact Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

SWEDEN—Per-Fredrik Tillquist, Gen. Mng., Maskininvestment-Tillquist AB, Stockholm, will visit the United States Oct. 25 to Nov. 3 to purchase **equipment for engineering industries, railroad equipment, and material handling machinery and equipment.** Maskininvestment-Tillquist A.B. is medium-sized company established in 1895. It has annual turnover of about $4.6 million, imports railroad equipment, machine parts and conveyors. Company is financially sound according to Swedish credit sources, and is recommended trade contact. Contact Bill Corfitzen, 202-377-2068.

AUSTRALIA—Bruce Rowe, Mng. Dir., Strebor Designs Pty., Artarmon, will visit the United States in the last week of October to purchase all types of **decorative lightingware** on an indent or license basis. He was scheduled to arrive New York City on Oct. 22. Contact Bill Corfitzen, 202-377-2068.

TAIWAN—The Chinese Products Promotion Center (CPPC), a quasi-government organization of public and private agencies is sending a **trade mission** to the United States Oct. 26-Nov. 5. The mission is composed of 20 business and industrial leaders from Taiwan who wish to buy and sell a variety of products. They are also interested in discussing investment and licensing opportunities with American manufacturers. They seek direct purchases, agency/distributor relationships, joint ventures and licensing agreements for new equipment and products in the field of electronics, plastics, chemicals, hardware, wooden furniture, electrical appliances, textiles and general merchandise. Americans interested in meeting this group in Chicago, New York or Los Angeles contact Bill Corfitzen, 202-377-2068.

IRAN—Established businessman is visiting the United States until Nov. 10. He wishes to arrange exclusive distributorships with American suppliers of literally all types of **photographic equipment** for Iran only. His interest includes still and motion picture equipment, photocopying equipment, chemicals, and black and white, color, and X-ray film and plates, as well as all equipment suitable for audio-visual projects. He is well-experienced, having worked in the industry for 22 years, and now wants to establish his own business. Contact Peter B. Alois, Foreign Buyer Program; 202-377-3265.

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Honolulu, 96813, 286 Alexander Young Bldg., 1015 Bishop St. (808) 546-8694.

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Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

Philadelphia, 19106, 9448 Federal Bldg., 600 Arch St. (215) 597-2850.

Phoenix, Ariz., 85004, 508 Greater Arizona Savings Bldg., 112 N. Central Ave. (602) 261-3285.

Pittsburgh, 15222, 2002 Federal Bldg., 1000 Liberty Ave. (412) 644-2850.

Portland, Ore., 97204, Room 618, 1220 S.W. Third Ave. (503) 221-3001.

Reno, Nev., 89502, 2028 Federal Bldg. 300 Booth St. (702) 784-5203.

Richmond, Va., 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

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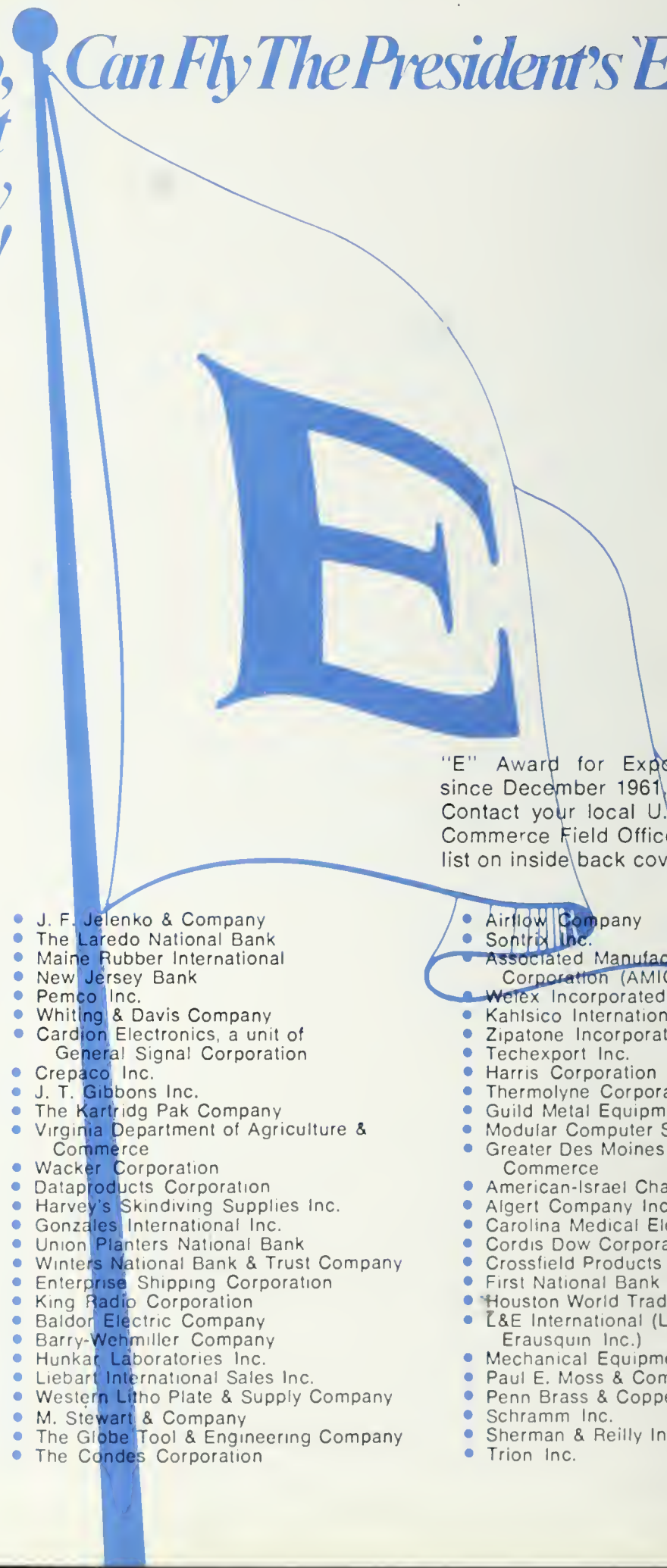

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- Banco Popular de Puerto Rico
- Cleveland World Trade Association
- Townsend Engineering Company
- Dynamic Plant, Industrial Drives Division Eaton Corporation
- Mays Manufacturing Company, Inc.
- MPC Industries
- W. A. Sheaffer Pen Company
- Gelman Instrument Company
- Fabcon Incorporated
- A. R. Wood Manufacturing Company
- Weld Tooling Corporation
- Transaero Inc.
- Vu-data Corporation
- Iowa State Department of Agriculture, Marketing Div.
- Engineered Equipment Company
- Export Agencies International
- J. F. Jelenko & Company
- The Laredo National Bank
- Maine Rubber International
- New Jersey Bank
- Pemco Inc.
- Whiting & Davis Company
- Cardion Electronics, a unit of General Signal Corporation
- Crepaco Inc.
- J. T. Gibbons Inc.
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COMMERCE AMERICA
FORMERLY COMMERCE TODAY

U.S. Department of Commerce / November 8, 1976

Consumerism: Commerce's Approach

Newsmemo

Activity in the service industries contributes a brisk note to the U.S. economic pace. Here are some rates of increase in the first seven months of 1976 over the same period of 1975: hotels and motels, up 18 percent; business services, 15 percent; miscellaneous repairing, 14 percent; automotive services, 12 percent; amusement and recreation, 8 percent, and personal services, 7 percent. The uptrend is expected to continue through 1976.

Use of electronic equipment in automobiles is growing. In 1971, the average U.S. car had about $35 worth of such equipment. That total has now doubled. The total value of electronics used in autos is growing at a 40 percent annual rate. One example: the major U.S. makers are developing electronic systems to analyze status of engine vacuum, coolant temperature, engine speed and crankshaft position and use this information to ignite the fuel in each cylinder at the precise optimum instant. It is expected that the systems can add one or two miles per gallon to fuel efficiency and help cut down harmful emissions.

Phasedown in use of tetraethyl lead in gasoline has been delayed. Impending U.S. shortage situation, in which motorists would have been pitted against petrochemical workers, has been averted. NEWSMEMO of Sept. 27 issue had reported concern of petrochemical industry that lead phasedown would mean increased 1977 refinery use of aromatics, cutting into tight supplies vital to plastics and synthetics production. The Environmental Protection Agency has now extended the deadline for the first lead phasedown in gasoline to Jan. 1, 1978. This should provide refiners and petrochemical producers time to prepare for the necessary changes.

Meanwhile the march toward better highway fuel consumption continues at a good pace. EPA figures from its lab tests on 1977 model cars indicate an overall average of 18.6 miles per gallon. That adds a full mile per gallon to similar tests conducted on 1976 model cars, and represents 19 and 34 percent improvement over the 1975 and 1974 models, respectively. It also puts the 1977s ahead of the 18 MPG goal set for 1978 models. All of this is to be viewed against the long-range goal of 27.5 MPG by 1985.

The International Tin Council this year has welcomed its most important new member—the U.S. Americans use 28 percent of all of the free world's consumption, and 80 percent of it comes in from abroad, principally now from Malaysia. U.S. mines produce only negligible amounts of tin, but our secondary production is the largest in the world. The International Tin Agreement, handled by the Council, brings together both producing and consuming nations in price-stabilizing and supply-demand arrangements. Its basic mechanisms are a buffer stock and schedules of export quotas.

Hourly wage demands seem to indicate an easing of inflationary pressures. The all-industries median first-year increase negotiated in 1976 is 45 cents an hour, down 10.5 cents from 1975, according to a Bureau of National Affairs survey. Construction median increase is 54.5 cents, down 20.6 cents; in manufacturing, the median increase is 40.3 cents, down 1.1 cents; in non-manufacturing, 45.5 cents, up 0.8 cents. Another factor in this situation is, of course, the new emphasis on increased fringe benefits for workers.

Advocates (and foes) of industry self-regulation have their eyes on cosmetics and toiletries. A voluntary ingredient safety review program is being developed by that industry to protect consumers. Its impact will extend far beyond the beauty aids field, however. It could help prove to Congress and the public that self-regulation by industry is feasible, effective and less expensive to taxpayers than government controls. The cosmetics review program provides for: 1) a central data bank of independent scientific findings and opinion relating to ingredient safety; 2) assurance of equitable evaluation of all cosmetics and toiletries ingredients; 3) assistance to small producers with limited lab resources.

A strong audit committee can help safeguard a corporation's public image. Price Waterhouse has newly updated its 1973 pamphlet, "The Audit Committee." It recommends that the chairman and majority of members of such groups be outside directors, and that audit committees be responsible for nomination of independent accountants, review of their reports and recommendations, and determination that management takes appropriate follow-up action. Every corporation with publicly-traded securities should have such an active audit committee, in the Price Waterhouse view.

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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COVER: Just as the squeaky wheel gets the oil, a special division has been established at Commerce to pour a little oil on the sometimes troubled waters between the business community and the nation's consumers. Our story beginning on page 4 explains what the Consumer Affairs Division is doing about the situation.

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ECONOMIC HIGHLIGHTS

Growth In Output Moderate; Final Sales Edge Upward

This column was written by John W. Kendrick, Commerce Chief Economist, in collaboration with staff economist Theodore S. Torda.

John W. Kendrick

The nation's real output of goods and services rose at an annual rate of 4.0 percent in the third quarter, following increases of 4.5 percent in the second quarter and 9.2 percent in the first quarter. This slowing in the growth rate of real GNP partly reflects the pattern of inventory investment, which swung from liquidation in the fourth quarter of 1975 to accumulation in the first quarter of 1976. During the second quarter, however, accumulation of business inventories remained close to the first quarter rate, and it declined a bit in the third quarter, according to the preliminary numbers. This means that the stimulus to growth provided by the change in inventory investment in the first quarter was absent in the next two quarters. The rise in consumer spending has been more moderate since the first quarter, and this has also been a major factor contributing to the subdued growth rate in real GNP during the second and third quarters.

Growth in real final sales, i.e., real GNP less inventory investment, has edged up during 1976—from an annual rate of 3.7 percent in the first quarter to 4.2 percent in the second and 4.4 percent in the third. The strengthening in real final sales helps to set the stage for more vigorous inventory investment by producers, wholesalers, and retailers. Since yearend, the increase in the physical volume of nonfarm business inventories has been closely geared to the rise in real business sales, so the overall inventory sales ratio has remained unchanged. The recent settlement of several major strikes, notably in the tire and auto industries, coupled with a continued pickup in growth of real final sales, should induce greater inventory accumulation in the fourth quarter. In addition, there is a reasonably good prospect of a rise in farm inventories, which were drawn down in the past two quarters.

Growth in personal consumption expenditures continued in the third quarter close to the second quarter rate of 4 percent. A stronger rise in durable goods spending largely offset a more moderate advance in nondurable goods, while purchases of services rose at the same rate as in the second quarter. However, real outlays for new cars have shown no improvement since the first quarter, when they rose sharply.

The third quarter gain in total consumer spending occurred in the face of a pronounced slowdown in the growth of consumers' purchasing power, largely attributable to a significant decline in farm proprietors' income. Real disposable personal income rose at an annual rate of only 0.9 percent compared to a 5.4 percent rate of advance during the first six months of 1976. Consequently, the personal saving rate dropped from 7.1 percent in the second quarter to 6.4 percent in the third quarter, representing the lowest saving rate for any quarter during the recovery to date. This in turn reflects an erratic quarterly pattern in farm proprietors' income, which dropped by $5.8 billion following a $5.6 billion gain in the second quarter. Despite variations in their income, farmers tend to spend for personal consumption at a fairly steady pace.

The gain in real outlays for business fixed investment slowed moderately in the third quarter. A strengthening in the rise of producers' durable equipment did not fully offset a virtual leveling in the structures component. The overall recovery in capital spending continues to be sluggish, considering the severity of the decline during the recession. Real outlays for business fixed investment have recovered by only 6.3 percent during the past year, following a cutback of 17.5 percent from early 1974 to late 1975.

It appears that actual plant and equipment outlays continued to fall below firm's plans. The most recent survey of the Commerce Department, which is expressed in current-dollar terms, indicated that businesses planned a 17 percent rate of increase in plant and equipment in the third quarter. This compares with the estimated 12 percent increase in the current-dollar figure for the nonresidential fixed investment component of GNP.

Of all major sectors of final demand, residential construction posted the largest percentage gain in the third quarter, despite a progressively slower rate of recovery since late 1975. Housing starts demonstrated renewed strength in the third quarter, particularly in September when the monthly increase was 18 percent. This should provide impetus to residential construction in the fourth quarter because more than 90 percent of the construction activity related to September's housing starts will occur in subsequent months.

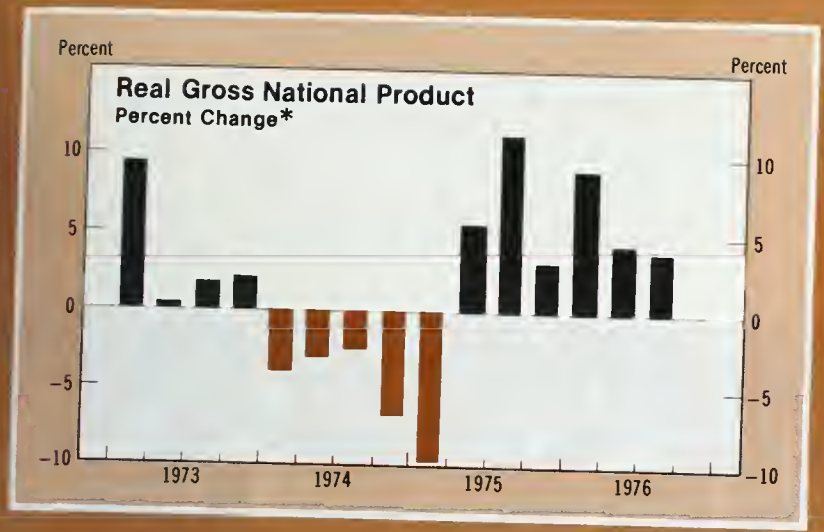
Net exports of goods and services edged up in the third quarter. Both federal and state and local government purchases of goods and services continued to recover from the declines registered in the first quarter. As shown in the chart, there have been a number of quarterly declines in real purchases by the Federal Government in recent years. Since early 1973, there has been virtually no net increase.

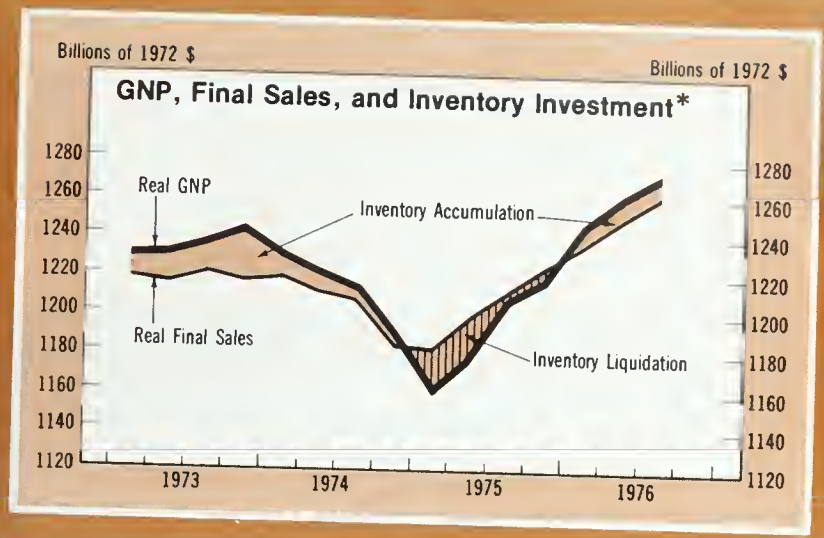
During the third quarter, there was a significant rise in import prices—at an annual rate of 17 percent. Prices paid by consumers for energy also rose at an annual rate of 17 percent. The price of residential construction rose a rapid 10.2 percent but was still below the second quarter rate; automotive prices decelerated from about 12 percent to below 6, and prices of food and household durables continued to rise at annual rates of less than 2 percent.

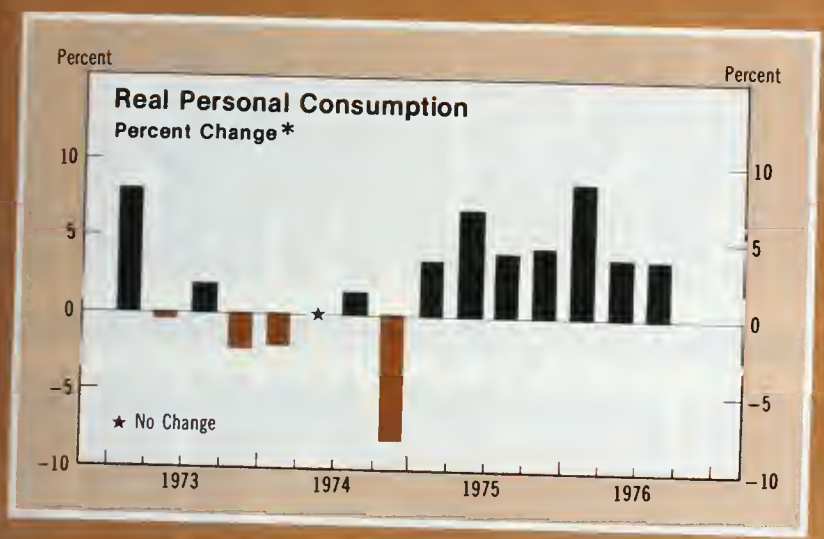
The rise in the GNP price deflator slowed from an annual rate of 5.2 percent in the second quarter to 4.4 percent in the third quarter. These rates of inflation are higher than in the first quarter, when temporary declines in food and fuel prices held the overall increase to 3.2 percent, but still represent an improvement over the 9.3 percent increase in 1975.

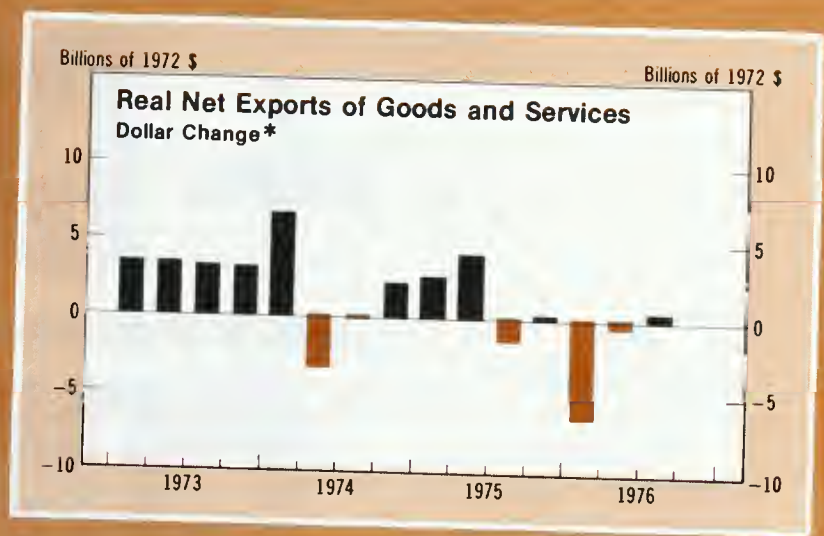
As a concluding note, it is of interest that the economic recovery thus far is similar to comparable periods of previous recoveries. Since the trough of the business cycle, reached in the first quarter of 1975, real GNP has risen at an annual rate of 6.3 percent. This is slightly better than the average 6.0 percent rate of advance during the first six quarters of the four previous recoveries. By contrast, real final sales have increased at an annual rate of 4.5 percent during this recovery compared with an average of 4.9 percent during comparable periods of four previous recoveries. While this is only a rough comparison, the difference between the two rates is substantial. However, it is much less than the difference in the first and second quarters.

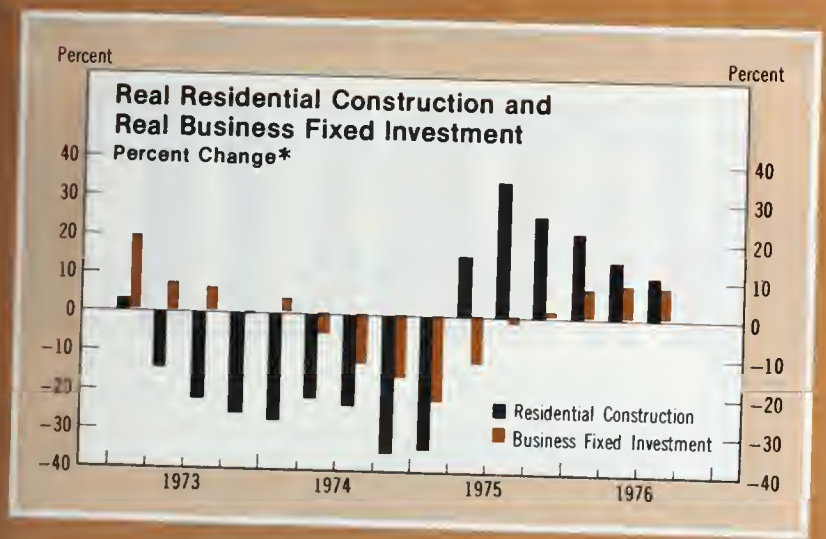
There is a reasonably good prospect for some pickup in the growth rate of GNP during the fourth quarter, largely from business fixed investment, residential building, and inventory investment

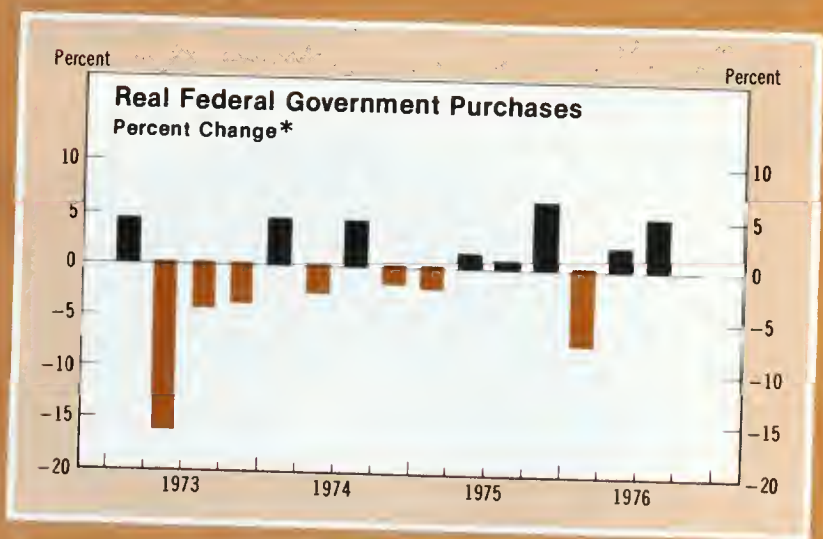


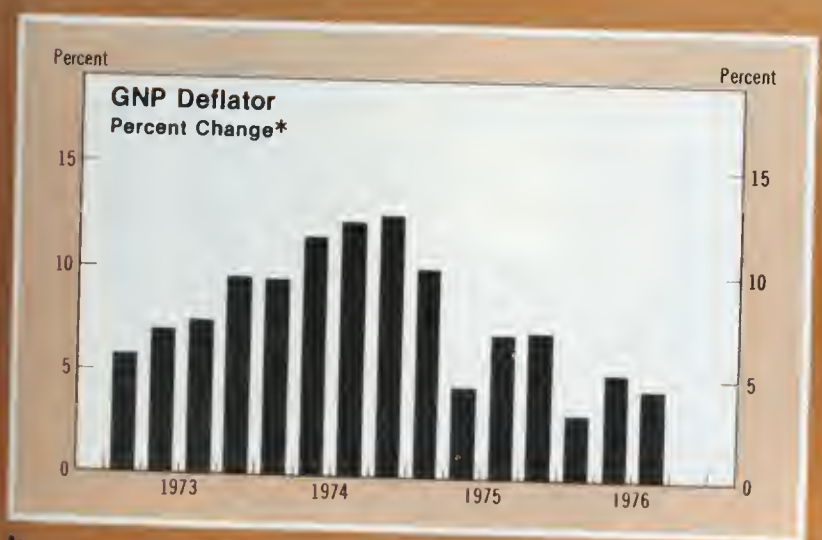


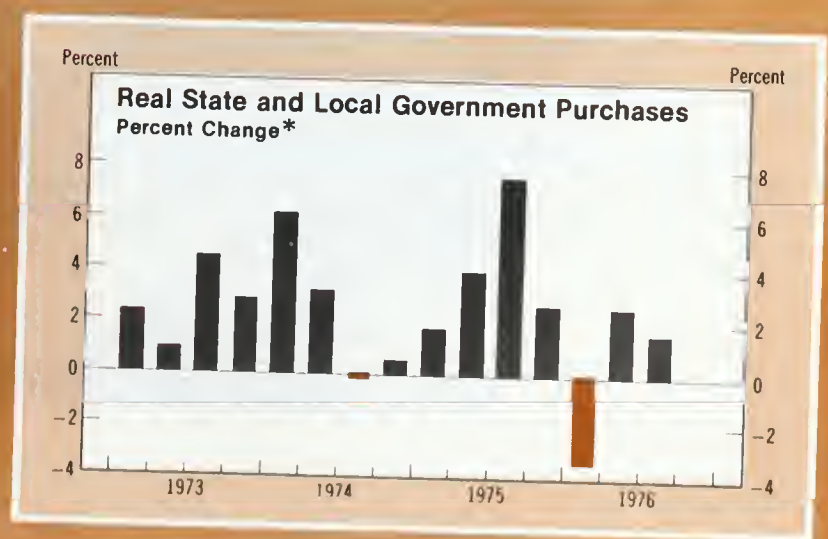












*Seasonally adjusted annual rate

BUSINESS + CONSUMER

COMMERCIAL VITALITY

Commercial vitality requires that the business-consumer relationship be a two-way street. . . . and a new Commerce unit is keeping that street well-paved, with its lighting in good repair and its lanes clear of any occasional mishaps.

Pursuant to a Presidential directive calling for more responsiveness to consumer needs throughout the Federal Government, a Consumer Affairs Division was established at Commerce early this year.

Director of the Division is Mrs. Meredith M. Fernstrom, who notes that concern with consumer affairs is nothing new for the Department of Commerce. "The success of any business enterprise depends on consumer satisfaction," says Mrs. Fernstrom. "Therefore, the Department's concern for consumer representation is an objective which ultimately is in the best interest of both business and consumers."

A number of Commerce units have functions which result in very direct and significant impact on consumers. They include:

National Bureau of Standards—which is active in the areas of weights and measures, product labeling, energy efficiency, and standardization;

National Marine Fisheries Service—which conducts on-site voluntary seafood inspection programs;

National Fire Prevention and Control Administration—which reviews fire codes and equipment, home safety measures, and the causes of fire, and makes recommendations to fire departments throughout the country; and

Domestic and International Business Administration—which is involved in trade negotiations, export controls and other commercial practices, and administers the Department's field office program, which is often the consumer's first point of contact with the Department.

There is also the Office of the Ombudsman, which serves both business and consumers, and by definition is the Department's official "red-tape cutter." The Ombudsman answers inquiries and complaints, and makes individuals' opinions and suggestions known to policymakers in the Department. It provides publications and economic studies dealing with current problems, statistics, or policies that impact on business.

Organizationally, the new Consumer Affairs Division was placed in the Ombudsman's Office largely because it was already the Department's complaint handler and trouble shooter.

Its access to the resources of the Office of Business Research and Analysis and other government agencies also made the Ombudsman's Office a natural home for the new unit.

"The division's role as in-house consumer advocate is to bring the views of the consumer into balance with those of business in policy and program decisions of the Department," says Fernstrom.

"Secretary Richardson has been wholly supportive of everything we're trying to do. We couldn't have asked for more cooperation and understanding," Fernstrom adds.

"For instance, he has been very active in pressing for recruitment of consumer representatives on each of the advisory committees of the Department on which they are eligible for membership, so consumers can be represented at the early stages of policy development when they can have meaningful input. In cases where consumer representatives are barred by statute from membership in certain committees, he has agreed that they be allowed to participate in their open meetings.

"He has also established a Departmental policy to reimburse consumer representatives for their travel and expenses to facilitate their serving as members of advisory committees."

The Consumer Affairs Division has nominated nearly 40 consumer representatives for various committees in the Department through contacts with major consumer groups throughout the country.

The division chief also advises the Secretary on

". . . the Department's concern for consumer representation is an objective which ultimately is in the best interest of both business and consumers."

ACCESSIBLE—Secretary Richardson places high priority on the Department's consumer representation effort. Here he talks over a project with Consumer Affairs Division Director Meredith Fernstrom.

"We're hoping that business will respond voluntarily to the consumer movement."

consumer matters in her role as staff director of the newly formed Consumer Affairs Council, which is composed of representatives from each organizational unit with consumer-related responsibilities. The Council meets monthly to consider consumer issues, prepare recommendations for policy officials, and submit reports on consumer affairs to the Secretary. It provides a forum where the Department's leading officials in the consumer affairs area look at major issues on which Commerce clearly has responsibility and try to develop programs that will promote consumer interests.

In a similar vein, the Consumer Affairs Division is taking part in a nationwide series of seminars sponsored by the Bureau of Domestic Commerce and the Office of Field Operations on business-consumer relations. The sessions include a speaker from Commerce outlining the Department's role in consumer affairs, as well as local consumers and businesses presenting examples of particular problems and solutions they have found.

"We're hoping that business will respond voluntarily to the consumer movement. This could go a long way toward reducing the amount of consumer protection legislation being passed. The consumer movement is here to stay, and unless business executives adjust to it voluntarily and try to shape its direction, then they can expect to have the solutions dictated to them through legislation they have had no hand in shaping."

The Seminar program encourages the use by businesssmen of guidelines developed by the National Business Council for Consumer Affairs to promote better responsiveness to consumer concerns in such areas as advertising claims, warranties, labeling, and similar matters.

The division urges both business and consumers to put an end to the "us-them" situation and to avoid stereotyping each other. "There are, in fact, a growing number of consumer affairs professionals who are trained in the disciplines of economics, consumer behavior, or marketing; who are reasonable and objective in their approach to consumer concerns; who understand the trade-offs involved in many issues; and, most importantly, who believe in and support the economic philosophies of the free enterprise system," Fernstrom points out. "As the consumer movement becomes more institutionalized, these professional consumer advocates will play an increasing role in representing the needs of the average 'grassroots' consumer—not just those of certain special-interest groups. What we're advocating is that business interests actively seek these people out and work out mutually satisfactory solutions with them. After all, the earlier a problem is recognized and remedied, the less painful and expensive the solution should be.

"Basically, our approach encourages business to adopt what we call the 'Seven C's' for consumer affairs," says Fernstrom:

Conciliation. Much valuable time, energy, and talent is being wasted while each continues to point the finger, place the blame, and shirk responsibility on consumer issues. We must put an end to the adversary relationship in which business and the consumer have existed in recent years, and which has forged the shape of the consumer movement today. . . .

"We can't talk to them."

"They don't listen."

"They're so unreasonable."

Who says these things? Interestingly enough, consumers say it about business, and, business says the same thing about consumers.

Commitment. The real goals of consumerism were crystallized in the "Consumer Bill of Rights" outlined by President Kennedy in 1963. These included:

the right to choose,
the right to be informed,
the right to safety, and
the right to be heard.

This Bill of Rights should serve as the foundation for developing a socially committed corporate philosophy for consumer affairs. Business leaders should formulate the consumer philosophy of their firms and make it known throughout all levels of the organization—to management, employees, *and* customers. They can then evaluate corporate programs and policies against this philosophy: how does each affect the consumer's health, safety, or economic position? What changes are needed to better serve the consumer?

Also, it is highly desirable that, wherever possible, a top executive be designated whose primary responsibility is consumer affairs, and who has meaningful input to policy decisions. It may also

IDEA FACTORY—John P. Kearney, Commerce's Ombudsman and chief of its consumer affairs program, and Fernstrom meet with Commerce's Consumer Affairs Council.

be productive to implement employee training programs in consumer relations, since consumer problems often result from inadequate or incorrect information, bad attitudes, or overly-aggressive sales tactics on the part of some employees.

Credibility. Actions do speak louder than words, particularly in the area of corporate consumer affairs. Carefully examine corporate practices—from the quality and safety of the product—to the way it is packaged, labeled, priced and advertised—to the way customers are treated—to the ways in which competition is handled. All should be above reproach.

Corporate credibility should lead to the practice of industry self-regulation. Within legal bounds, all members of the business community should support measures designed to curtail unethical practices by the few. Don't defend, excuse, or otherwise appear to rationalize improper business conduct.

Communication. The need for improved business communication is perhaps the single most important factor in the success or failure of business today. Recent studies have found an alarming increase in hostility toward, and suspicion of, the American economic system and business itself.

Real communication involves much more than just talking with colleagues. Communication must start within the company— with employees, in the community where the firm operates, with customers, and with elected officials. Let them know the company's opinions on the issues. Tell them the firm's problems. Make them aware of the costs and trade-offs involved in matters that affect the company.

Whenever a possible consumer problem appears on the horizon, initiate a dialogue—early in the game and on a personal basis—with consumers and consumer organizations. And always bear in mind that the most important, and often most difficult, part of any dialogue is listening to the other party.

Many companies are communicating effectively with consumers through the establishment of Consumer Advisory Committees. These Committees are not formed for "window dressing" or as a new public relations tactic, but to provide a forum for real dialogue with consumers on substantive issues. Therefore, such committees must be made up of persons who truly represent the consumer's interest. They should be allowed every opportunity to discuss issues which concern them, and their advice should be given full consideration in determining the company's final position.

Also, it is often beneficial for business to communicate with state and local consumer agencies and major consumer organizations simply to keep abreast of their views. Subscribe to their newsletters; attend their conferences. You might be surprised at what you'll learn.

Another vitally important aspect of communication for industry is in the areas of product labeling, advertising, and promotion. Take a look at all forms of consumer information that the company produces. Do they convey the facts adequately and accurately? Is printed information in compliance with pertinent regulations and still intelligible to the "average" consumer?

And, very importantly, do top executives make an effort to read and respond personally to complaint letters?

It is also helpful to tell customers how to complain. Let them know who to contact, and what details or documentation to provide. Encourage them to tell what action they expect to be taken.

Cost-effectiveness. There is a growing need for government, business, and consumers to take a long hard look at the cost of consumer protection versus its benefits.

This country's economy has reached a point where it may no longer be able to afford "protection at any cost;" where, increasingly, the consumer must assume a greater share of responsibility for his own health and safety, and for the economic consequences of his decisions in the marketplace; and where trade-offs and compromises must be vigorously pursued and accepted by both consumers and business.

Mrs. Fernstrom combines the final 2 C's—**creativity** and **courage.** "Consumerism is an extremely complex, emotional, and all-encompassing movement—and as noted above it's not going to go away. It is imperative, therefore, that leaders of the business community call forth the tremendous reserves of creativity and courage that have made the American marketplace what it is today in order to meet the challenges and to benefit from the opportunities of the consumer movement."

Business leaders should formulate the consumer philosophy of their firms and make it known throughout all levels of the organization . . .

Energy Digest

COMMERCIAL SOLAR POWER . . . The Federal Energy Administration has contracted with 11 electric utility firms to develop means of integrating solar electric power generating equipment into their distribution networks in the Southwest. The firms will evaluate, from a utility's point of view, the technical, legal, economic and institutional considerations needed to make solar electric energy a success in the Southwest. The study is essential, FEA points out, because the primary investment in solar electric power stations—when solar electricity becomes practical—will come from utility firms. The firms will identify economic factors necessary for accelerated commercialization; assess regulatory and legislative factors that could affect accelerated expansion; evaluate alternative organizational plans to meet the goals; and determine ways to increase utility participation in solar research and development activity.

COST REDUCTION GUIDES . . . A jointly-sponsored study of the nation's 92,000 small laundry and dry cleaning firms, designed to reduce energy use and costs, is being undertaken by the Federal Energy Administration and the International Fabricare Institute. These cleaning establishments have had major increases in energy costs during the past several years. The study, the first of seven which are planned for different small industries, began with detailed on-site energy audits of selected firms. The results of these audits will be incorporated into energy cost reduction guides to be published by IFI for distribution to its membership, as well as to other small businesses in the industry. In addition, IFI will sponsor a series of workshops across the country, involving the Institute's affiliates, FEA's regional offices, state energy offices, and local offices of the Small Business Administration.

CAVEAT ON COAL . . . From the heart of coal country comes a warning that U.S. energy planners may be putting too much reliance on coal. Richard L. Gordon, Professor of Mineral Economics, Pennsylvania State University, warns that expectations about the role of coal in U.S. energy supplies may be exaggerated. In a critical examination of the long-term use of coal as an alternative energy source in the United States and the implications for Canadian consumers, Gordon points out that many projections of coal as a source of energy rest on very poor information regarding the economic viability of coal deposits. While official estimates of U.S. reserves do not rule out the prospects of a substantial move toward coal in the future, they do suggest that known, low-cost supplies are inadequate to warrant such a development, in Gordon's view. He also points out that U.S. mine safety laws, strip-mining regulations, land-leasing policies and controls on sulfur emissions are causing significant delays in developing such U.S. coal supplies as are available. In addition, reserve estimates in Canada raise serious questions concerning the feasibility of western reserves making a major contribution to that country's future energy needs, he concludes.

SOLAR-POWERED WELLS . . . ERDA is testing the feasibility of using solar power to pump irrigation water from deep wells in Arizona. Project directors are seeking proposals for the design of an experimental 200-horsepower solar system. Initial contracts will cover preliminary design studies for the system. The award of three concurrent contracts, approximately $300,000 each, is planned. The best design resulting from the preliminary design phase, if the approach continues to look promising, will be selected for the detailed design, construction and test portion of the project. Plans are for the system to be in operation by the end of 1979. Requests for proposals may be obtained from Kent A. Campbell, Contracts Negotiation Branch, ERDA, Box 5400, Albuquerque, New Mexico 87115. Deadline for proposals is Nov. 15.

CEMENT FIRM LAUDED . . . The first cement company on the West Coast totally to convert from natural gas and oil to coal as its primary fuel in manufacturing cement has been cited by the Federal Energy Administration. Amcord, Inc., of Newport Beach, California, started its conversion planning more than three years ago, when little attention was paid to the impending energy crisis. By making the conversion, the firm has freed up 12 billion cubic feet of increasingly scarce natural gas each year and has also reduced air pollution since all of the coal combustion products, including ash and sulfur, are absorbed directly into the finished cement. The cement industry, which accounts for 3.5 percent of the energy consumed in all U.S. manufacturing, is the nation's sixth largest industrial user of energy.

Down To The Sea In . . . . . Miners' Helmets?

IMMENSE RAW MATERIAL DEPOSITS SEEN POSSIBLE WHERE EARTH'S CRUSTAL PLATES COME TOGETHER

Miners of the future may be going to work in submarines if a theory recently propounded by Commerce and UN scientists proves valid . . . . and a new source of industrial raw materials in an increasingly resource-short world may be feeding America's factories.

Giant crustal plates that compose the floor of the Pacific Ocean may be rimmed by rich mineral deposits, according to scientists with Commerce's National Oceanic and Atmospheric Administration (NOAA) and the United Nations.

The earth's crust is divided into a jigsaw puzzle of irregular plates; some stationary, some moving slowly at a rate of only a few centimeters a year. The borders of the plates are scenes of massive, sometimes violent, geologic activity. At undersea ridges along some plates' edges, new crustal material wells up from the molten mantle of the earth and spreads outward. Elsewhere, at deep ocean trenches, the plates collide, with one usually sliding beneath the other. Under most of the Pacific Ocean is a single crustal plate.

Deposits of oil and metals, according to Dr. Peter A. Rona of NOAA's Environmental Research Laboratories and Lawrence D. Neuman of the UN Office for Ocean Economics and Technology, are linked to plate tectonics—the global geologic process that includes sea floor spreading and continental drift. Because of this, they say, marine prospectors should concentrate on areas of tectonic activity where the plates interact, and the Pacific plate is ringed by them.

Oil and metals

Along the trenches and ridges found under the Pacific, the Commerce Department and UN scientists believe, are immense deposits of oil and metals.

Where oceanic crust is descending below a continent, curved strings of islands, known as "island arcs," form offshore, sectioning the ocean into smaller basins such as the Sea of Japan and the Bering Sea.

According to Rona and Neuman, trenches and island arcs act as barriers that accumulate sediment and organic matter, both from the continent and the ocean basin. Here, oceanic circulation is restricted, oxygen is not replenished in the water, and the organic matter is preserved. Geothermal heat in the trenches and small basins help convert the organic matter to petroleum. Finally, powerful pressures of colliding plates form traps where the petroleum can accumulate.

At boundaries where new crust is being generated, as along the East Pacific Rise, hydrothermal processes would concentrate metals, they believe. In the first stage of this process, cold, dense sea water descends through cracks in the ocean floor to be heated by contact with hot and molten rocks. It then rises, leaching metals from the crustal rock as it does, and discharges from the ocean bottom as hot springs. Some of the leached metals combine with sulfur in the sea water and precipitate in layers containing copper, iron, and possibly gold, according to the theory.

Rich deposits of sulfide metals already have been found along two ocean rifts. About five years ago, the richest known submarine metallic sulfide deposits were found in basins along the rift bisecting the Red Sea, by geologic standards an infant ocean basin. Sediments there contain iron, zinc, copper, and lead, plus small amounts of silver and gold.

At the crest of the Mid-Atlantic Ridge, part of the oldest rift system on earth, a NOAA field study begun in 1972 discovered a hydrothermal field where sediments contain manganese concentrations of 40 percent.

The presence of mineral-rich sediments at a young and an old rift suggests to the scientists that the mineral formation process may continue throughout the lifetime of a spreading rift. They believe fields similar to those in the Atlantic and Red Sea may exist along the East Pacific Rise.

Trenches where two plates are converging would also be good candidates for metals prospecting, the two predict. Precious metals, including gold, silver, and platinum; base metals such as antimony, copper, lead, mercury, tin, and zinc; and iron and iron-alloy deposits containing chromium, cobalt, manganese, molybdenum, nickel, tungsten, and vanadium are concentrated by processes there.

Where it's at

Deposits of these metals occur along the western edges of North and South America. In the western Pacific, such deposits can be found on island arcs such as Japan, the Philippines, and Indonesia.

It is thought that the metals are extracted from oceanic crust saturated with sea water as it descends into the earth's hot interior and begins to melt. The metals ascend again as components of molten rock, are concentrated in fluids released from the rock, and deposited on the ocean floor.

The scientists conclude that "the concept of plate tectonics may be applied to predict areas hundreds to thousands of kilometers in extent of the Pacific region where certain types of energy and mineral resources are likely to occur." Thus, geologic processes may provide a treasure map for marine and land prospectors.

EIGHTEEN APPOINTED TO PRODUCTIVITY BOARD

Eighteen individuals have been appointed to the Board of Directors of the National Center for Productivity and Quality of Working Life.

They are: I. W. Abel of Pittsburgh, president, United Steelworkers of America; Donald C. Burnham, Pittsburgh, director-officer, Westinghouse Electric Corp.; Berkeley G. Burrell, Washington, D.C., president, National Business League; Edward E. Carlson, Chicago, chairman-chief executive officer, United Airlines, Inc.; and C. L. Dennis, Des

Plaines, Ill., international president, Brotherhood of Railway, Airline, Steamship Clerks, Freight Handlers, Express and Station Employees.

Also, John T. Dunlop, Belmont, Mass., professor, Harvard Business School; Daniel J. Evans, Seattle, governor of the State of Washington; Frank E. Fitzsimmons, Chevy Chase, Md., president, International Brotherhood of Teamsters; Gaylord Freeman, Wayne, Ill., honorary chairman, First National Bank of Chicago; and Robert A. Georgine, Silver Spring, Md., president, Building and Construction Trades, AFL-CIO.

And Andrew E. Gibson, Short Hills, N.J., president, Maher Terminals; James E. Holshouser, Jr., Boone, N.C., governor of the State of North Carolina; Wayne L. Horvitz, Washington, D.C., chairman, Joint Labor-Management Committee of the Retail Food Industry; J. Lane Kirkland, Washington, D.C., secretary-treasurer, AFL-CIO; R. Heath Larry, Pittsburgh, vice chairman of the board, U. S. Steel Corp.; Bess Myerson, New York, syndicated columnist and consumer advocate; and Herbert S. Richey, Bath, Oh., president-chief executive officer, Valley Camp Coal Company; and L. William Seidman, Ada, Mich., assistant to the president for economic affairs.

In addition to these private citizens, the Board of Directors also includes Secretary of the Treasury William E. Simon; Secretary of Commerce Elliot L. Richardson; Secretary of Labor William J. Usery, Jr.; James F. Scearce, director of the Federal Mediation and Conciliation Service; and George H. Kuper, executive director of the Center. Vice President Nelson A. Rockefeller is chairman.

The Center was established in 1975 to stimulate national efforts to improve productivity, and to establish a national policy for continued productivity growth.

Guide Aids Enterprises In Financial Difficulties

Making a success of a small business is a difficult job, and many find themselves in financial difficulties. A new publication, *Strategies and Techniques For Saving The Financially-Distressed Small Business*, gives the business executive an overview of remedies that are available.

Written by a practicing attorney and professor of business and law, the guide tells how to protect the business from overzealous creditors, how to minimize personal liability and how to turn business adversity around. Its major sections cover evaluating the troubled business; remedies for the insolvent business; creditors and credit; and mergers, spin-offs and consolidations.

The publication is available from Pilot Books, 347 Fifth Ave., New York 10016 at $3.95 per copy, postpaid.

BLACKS SEEN NEEDING HELP TO HOLD ONTO SOUTHERN ACREAGE

Land owned by blacks in the South could form the equity base for greater minority participation in the growing southern economy, says a new study published by Commerce's Office of Minority Business Enterprise (OMBE).

Entitled *Land and Minority Enterprise: The Crisis and The Opportunity*, the three-part report analyzes patterns of black land ownership in 14 southern states, examines the long-term effects of land ownership on rural black families, and suggests a low-cost government policy designed to stabilize black land losses in the South and strengthen black agricultural enterprises.

Approximately 65,000 southern black landowners controlled close to six million acres worth about $1 billion at the time of the 1969 Agricultural Census. But the study notes that the volume of black-held land, while substantial, was far less than the amount owned by blacks 15 or 20 years before. In the interim, blacks had been losing land at the rate of 330,000 acres per year.

Slowing this trend is critical to the preservation of this unique minority-controlled resource. One solution, the study suggests, is to give minority landowners greater access to the commercial activities that take place on the vast public land holdings in the South.

Noting the extensive federal land holdings in the 14 states covered in the survey, their close proximity to minority-held acreage, and the fact that commercial activity is already quite extensive on federal lands, the report argues for the use of public lands by minority agricultural interests. An example of such usage would be access to lands controlled by the Forest Service to accommodating the grazing needs of minority-owned beef cattle enterprises.

The Commerce Department study, begun in 1973, is the first attempt at assessing the commercial value of black farmland in the South and its potential leveraging power for rural economic development. It found that the small size of most black-owned parcels limits commercial agricultural enterprises to the sort not likely to provide a sufficiently large return to allow blacks to hold on to this land over the long run.

Commenting on the results of the research, Alex Armendaris, director of the Office of Minority Business Enterprise said, "Farm land in many Southern states offers one of the most important capital resources in minority hands. A realistic strategy for minority economic development should aim at preserving this unique resource as a basis for expansion of the minority financial base in this region.

"While the focus of the OMBE-Duke land study is on black-owned land in Southern states," Armendaris stated, "most of the policy implications would also apply to other regions and to members of other minority groups. It is OMBE's hope that this story will provide valuable input to anyone interested in rural economic development."

The 86-page report is for sale at $1.80 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Bioconversion Could Furnish Half Of World Energy Need, Report Says

The promise and problems of bioconversion—producing usable energy from organic matter such as plants and organic wastes—are coming in for increased attention from U.S. government and commercial interests.

The first comprehensive publication on bioconversion for energy and related products has been issued as follow-up to the international conference held in Washington last spring.

Titled *Capturing the Sun Through Bioconversion*, the 865-page document includes all papers and the principal panel discussions at the March conference. Material was contributed by 146 representatives of industry, government and environmental groups who participated in the three-day meetings.

Progress reports on a large number of production and conversion systems are included, as well as detailed research on promising concepts. India, Germany, Sweden and Canada were among twenty nations represented.

Prime sources of bioconversion materials are urban and agricultural wastes (including feed-lot manure) and special energy corps—grown on land and fresh water and in the oceans. Conversion techniques include direct burning, pyrolysis and bacterial digestion. The chemistry and economics of turning wastes and special crops into methane gas, alcohols and other useful products are covered in depth.

Analysts estimate that from 10 percent to upwards of 50 percent of the world's energy requirements could be met through bioconversion at some point early in the next century—with major environmental benefits.

Sponsors included ten federal agencies and five industrial or community associations involved in energy production or environmental protection.

Copies of the report can be ordered for $18 from the Conference Coordination Office—The Washington Center, 1717 Massachusetts Ave., N.W, Washington, D.C. 20036 (202-462-4874)

MORE RELIABLE PRODUCT LIABILITY DATA NEEDED, COMMERCE GROUP FINDS

More reliable data on the extent and impact of product liability claims, skyrocketing increases in insurance rates and the unavailability of insurance for many companies is badly needed. That was the one point repeatedly emphasized during the second meeting of the Commerce Advisory Committee on Product Liability last week. Out of its deliberations, this Committee is expected to provide Commerce Secretary Elliot L. Richardson the ideas and guidance to cope with what is becoming an increasingly difficult problem for the nation's business community.

The Committee was told last week that the capital goods industry and numerous small companies have been hard hit and that rules expanding tort liability have had an effect on the rise in insurance rates.

Presiding at the meeting was Judge Ned Price, Senior Member of the State Board of Insurance, Austin, Tex., Advisory Committee Chairman. Varying points of view on a number of suggested remedies were expressed by members of the committee, which includes representatives of manufacturers, wholesalers, retailers, the insurance industry, insurance regulators, the legal profession, labor, and consumers.

Victor E. Schwartz, Project Director of the Interagency Task Force, presented a summary of progress made in the investigation of the product liability problem and presented subjects for discussion by members of the Advisory Committee.

Reports were made by representatives of the three contractors developing information for the Task Force. They were: Jerry Gordon, of Gordon Associates, representing industry; Frank Orban, The Research Group, Cambridge, Mass., dealing with legal questions; and Philip H. Dutter, McKinsey and Co., New York, representing insurance.

Suggested questions

In addition to presenting summaries of their work, the three representatives suggested questions which they asked the Advisory Committee to consider. Questions included the problem of determining where the product liability difficulty resides, the extent to which product liability insurance is unavailable, and the question of the feasibility of using federal standards as a defense in product liability cases.

In the course of the discussions, Under Secretary of Commerce Edward O. Vetter said: "It is an unfair world. There are more good questions than good answers."

Among the remedies discussed were the following: rules relating to the basic responsibility of product manufacturers; rules and regulations relating to the use of expert testimony; the question of payment of damages in periodic installments; a mandatory product liability insurance requirement; and a consideration of manufacturer-instituted safety practices and how they may be related to the product liability problem.

In a number of cases, questions relating to prospective remedies involved other questions. The question on the basic responsibility of manufacturers introduced the matter of a limit on the duty of manufacturers, and how this would be defined.

Considerable attention was devoted to a statute of limitations on claims for injuries from the use of products, and how such a statute would be framed. Would such a statute be based on the "useful life" of the product? What would happen if the product were used beyond its useful life, and a person were injured because the product was used after its useful life had passed?

Improper assembly

One point raised was that if a product is assembled erroneously, and a person is injured as a result, is the manufacturer exempt from liability, and is the retailer or other person who assembled it to be held liable?

Jack Sheehan, Legislative Director, United Steelworkers of America, raised a question as to the situation of a worker who is injured by using a product after its useful life had passed. He insisted that whatever provision is made in such a case should not leave the worker in "a vacuum."

Representatives of manufacturers emphasized that product liability claims, and awards made in strict liability cases, had caused astronomical increases in product liability insurance rates to a point where some small companies could not afford insurance, and others were forced out of business. They protested against a system in which a manufacturer could be held liable for injury caused by negligence on the part of a user, or for injury resulting from use of a product that had been resold several times, and had been altered in the process.

Discussion as to whether a "crisis" exists in the product liability area brought from Fred G. Secrest, Executive Vice President, Ford Motor Co., the comment that whether or not the situation was to be called a "crisis" was immaterial, since in truth a highly important problem actually existed.

Secrest said that Ford's product liability claims at the present time totaled 45 times the company's self-insurance for such claims and its reserve set up for the purpose.

There was a considerable discussion of the reform of the tort litigation system. Secrest suggested that a uniform law might be drafted which could be suggested to the states for their adoption.

Melvin Block, Brooklyn attorney, objected to any federal intrusion into the system of tort law, saying it was a matter for the states.

One of the complaints against the present situation, and the sharp advance in insurance rates, was the matter of contingency fees. Suggestions have been made that the contingency fee system should be sharply modified. Block made a spirited defense of the contingency fee, saying it was the means whereby an injured poor person, unable to pay for legal service, could get into court.

Discussion about the product liability rates charged by insurance companies led to talk on the problem of predictability. Edward J. Noha, Chairman of the Board, C. N. A. Insurance Companies, Chicago, said no progress could be made in this matter until the question of predictability had been settled. He stressed the need for more reliable data on various phases of the product liability problem.

Vetter reminded the committee of the importance of assembling reliable data on the various involvements of product liability, and of getting it ready, since legislation on the question will likely be considered by the next Congress.

Vetter emphasized that all persons having material to present for consideration in connection with the product liability problem should do so immediately. He pointed out that the contractors engaged to do basic work on the problem for the Interagency Task Force on Product Liability must submit their final reports by Dec. 3. Vetter is Chairman of the Task Force, which is scheduled to report to the Economic Policy Board in the White House Dec. 15. The Board initiated the Task Force investigation.

Material intended for the Task Force is to be submitted no later than Nov. 15. It should be addressed to the Executive Secretary, Interagency Task Force on Product Liability, U.S. Department of Commerce, Room 2898 C, 14th and Constitution Ave., NW., Washington, D.C. 20230.

Magazine Covers Quality Control Beat

Photographs by satellite, product liability and quality assurance are all covered in the fall issues of *Quality Progress*, the monthly news magazine of the American Society for Quality Control.

For further information, contact Darlene C. Schmidt, Public Information Office, American Society for Quality Control, 161 West Wisconsin Ave., Milwaukee, Wisc. 53203 (414-272-8575).

AND NOW FOR A TRAFFIC REPORT—*An automated vessel-traffic reporting system is under study by an industry-government team for use nationwide. Above, tugs assist the Italian Line container vessel* Americana *docking at Baltimore.*

System Seeks To Pinpoint All U.S. Maritime Traffic

The U.S. maritime industry may be on the verge of developing instantaneous knowledge of the location and status of all vessels using U.S. ports.

Commerce's Maritime Administration is collaborating in an industry-government project which could lead to the first automated nationwide vessel-traffic reporting system for U.S. ports.

Increasing use of fast container and other specialized and intermodal ships calling at U.S. ports has assured widespread interest and cooperation in the standardization and improvement of uniform traffic reporting and projected arrivals.

The 12-month project will survey major port areas to determine current ship-traffic reporting capabilities and information requirements of the maritime and world trade industry, as well as the government.

More than 20 ports and organizations will participate in the project, which will be coordinated by the Marine Exchange of the San Francisco Bay Region.

Commerce's Asst. Secretary for Maritime Affairs, Robert J. Blackwell, called the project "a good example of the creative role of government. When completed, the system will be implemented and operated by industry to produce significant continuing benefits to the entire maritime industry."

Exchange President Paul A. O'Leary said that "with modern telecommunications and EDP services available, it's time to seek nationwide port information exchanges and pooling of intelligence, to meet today's needs for fast, accurate traffic information. Neither government nor industry can suffice any longer with localized, unique intelligence services, which are incompatible among the various port areas. If the effort is successful, we project a common, cooperative system, which will preserve the local independence of marine exchanges and maritime associations—and which will provide them with the benefits of greatly improved data flow.

Tapes Of Quality Control Conference Available

A series of presentations from the American Society for Quality Control 30th Annual Technical Conference, held last June in Toronto, have been taped and are now available to supplement the conference's printed *Transactions*.

Topics include: product liability, technology assessment, supplier evaluation, system standards, quality audit, biomedical trends, quality and management, consumer interests, nuclear quality assurance, international certification, and nutritional standards and labeling.

More than a dozen individual presentations and panel sessions—papers that do not appear in *Transactions*—are offered on ten casette tapes. Individual tapes are $6 each; the full set is $52. Orders must be prepaid. For full details, contact American Society for Quality Control, Dept. PI-140, 161 West Wisconsin Ave., Milwaukee, Wisc. 53203. (Telephone 414-272-8575.)

Public Input Sought On Rules For Coastal Energy Impact Program

A set of billion-dollar rules is being drawn up by a Commerce agency.

Proposed regulations under which states and local governments can qualify for grants under the new ten-year, $1.2 billion Coastal Energy Impact Program have been announced by the National Oceanic and Atmospheric Administration (NOAA).

When adopted, the procedures will outline rules for obtaining assistance to mitigate the onshore impact of new or expanded offshore coastal energy activity, including outer continental shelf drilling, transportation or processing of liquefied natural gas, and transportation or storage of coal, oil, or natural gas.

The primary requirement under the regulations is that a state must now be participating in an approved coastal management program, or must be making satisfactory progress toward achieving such a program consistent with the principles of the Coastal Zone Management Act of 1972.

States that are eligible can expect to receive financial assistance as early as next May. The regulations become effective in January.

NOAA has scheduled a public hearing on a draft Environmental Impact Statement applying to the proposed regulations for November 22 in Washington, D.C., at a place yet to be selected.

The proposed regulations appear in the *Federal Register* of October 22, and public comment will be received until Nov. 22 by the Office of Coastal Zone Management, NOAA, 3300 Whitehaven St., Washington, D.C. 20235.

Publication of the final regulations is scheduled for December.

Resource Guide Issued On Women At Work

Why are women abandoning the traditional "women's jobs" for blue-collar jobs that were formerly the exclusive province of men? A new booklet and film from the Pennsylvania Commission for Women attempts to answer the question, and encourage employers to consider women for jobs in the skilled crafts and trades.

Why Not A Woman? Facts About Women and Work provides facts and statistics on working women, and discusses affirmative action and employment discrimination. The 20-page booklet was produced in conjunction with the Commission's new documentary film *Why Not A Woman?*

To obtain a copy of the booklet, send 26 cents postage to the Commission for Women, 512 Finance Bldg., Harrisburg, Pa. 17120. The film is available on loan.

CONFERENCE TO CONSIDER PRODUCTIVITY IN THE 1980s AS KEY TO PROSPERITY

The productivity performance of the American economy through the 1980s will be examined at a symposium scheduled for November 16-17 in Washington. The Future of Productivity conference is jointly sponsored by the Council on International Economic Policy, the National Science Foundation and the National Center for Productivity and Quality of Working Life.

Attending will be senior officials at the policy-making levels of business, labor and government. They will hear presentations and panel discussions by experts on productivity. The long-range outlook for productivity from national and international perspectives will be explored in relation to human resources development, technology and capital, and the impact of government regulations. Also on the agenda is the potential effect on productivity of changes in supplies of materials and energy.

Chairman of the opening day sessions is John Kendrick, chief economist of the Department of Commerce. Luncheon speaker will be Herman Kahn, president of the Hudson Institute, talking on The Next 200 Years.

Tuesday's program is as follows:

Session I—Productivity Outlook: U.S. Economy to 1985. Speakers are Ron Kutscher, Jerome A. Mark and J. R. Norsworthy of the Bureau of Labor Statistics, Department of Labor; Clopper Almon, professor of economics, University of Maryland; and Edward Denison, senior fellow, the Brookings Institution. Panelists are Douglas Greenwald, vice president-economics, McGraw-Hill Publishing Co., and Markley Roberts, AFL-CIO economist.

Section II—Productivity Outlook: Major Sectors, 1985-90. Speakers are Leroy Quance, program leader, Department of Agriculture; Roger Brinner, economist, Data Resources, Inc.; and Theodore Levitt, professor, Harvard University Graduate School of Business Administration. Panelists are David L. Grove, vice president and chief economist, IBM Corp., and James Wishart, director of research, Amalgamated Meat Cutters and Butcher Workmen of America.

Wednesday's chairman is Donald C. Burnham, director-officer of Westinghouse Electric Corp. and director of the National Center for Productivity and Quality of Working Life. Wednesday's luncheon speaker will be Simon Ramo, chairman of the President's Committee on Science and Technology.

Wednesday's program is as follows:

Session III—Productivity Outlook: U.S. and Foreign Countries. Speakers are Hugh Patrick, Economic Growth Center, Yale University; Angus Maddison, Office of Economic Cooperation and Development, Paris; George F. Ray, National Institute of Economic and Social Research, London. Panelists are Richard Karfunkle, senior vice president and chief economist Lehman Bros. and George Perkel, director of occupational safety and health, Amalgamated Clothing and Textile Workers Union.

For further information about the conference, contact Sue Tietze at the National Center for Productivity and Quality of Working Life, 2000 M St. NW., Suite 3002, Washington, D.C. 20036 (telephone 202-254-9890).

Proceedings of the conference on productivity measurement held in Washington last June will soon be available from the above address.

Another new publication from the Center tells where to turn for advice on how to set up a labor-management productivity committee. The *Directory of Labor-Management Committees* outlines the programs of more than 180 active labor-management committees whose principals are willing to share their experiences.

Improved productivity depends to a great extent on the efforts of labor and management working together to increase efficiency and raise the quality of working life. Labor-management committees are among the means of achieving this cooperation, and have proven useful mechanisms for dealing in a nonadversary setting with a variety of problems affecting productivity and work satisfaction. They provide the opportunity for workers and managers to share their ideas for improving the success of the enterprise and increasing worker satisfaction and job security.

The directory was designed to bring together people or organizations who are interested in forming a committee with experienced groups who already have one in operation. It documents the work of the innovators with a brief description of the program, the number of people involved, and the names, addresses and telephone numbers of persons to contact. Three indexes list programs by type of committee (such as industry, plant, division, etc.), by union and by company.

The directory is a preliminary listing developed from information obtained from the Bureau of Labor Statistics, the Federal Mediation and Conciliation Service, and research by Center personnel. The Center plans to update the directory from time to time as new information becomes available.

The directory contains listings on 113 plants of 89 companies, 147 locals of 96 unions, 49 federal, state and local government agencies, and 19 community-wide programs involving a total of more than 550,000 workers in 33 states.

Single copies are available from Labor-Management Division, National Center for Productivity and Quality of Working Life, address above.

Eight Counties Become Eligible For Federal Funds

Eight counties in five states have become eligible for Federal financial assistance—including loans to private businesses—to help plan and carry out programs to stimulate long-range economic growth and create jobs.

The areas became eligible for the assistance by being designated redevelopment areas by Commerce's Economic Development Administration. They are:

Florida: Citrus and Hernando counties.
Indiana: Ripley and Rush counties.
Michigan: Ottawa County.
Minnesota: Benton and Murray counties.
Mississippi: Warren County.

The designations are based upon high rates of unemployment and make the areas eligible to participate in EDA programs that provide:

—Loans and loan guarantees to help private enterprise expand in areas of high unemployment.

—Planning and technical assistance to help develop local resources to create jobs.

—Grants to help construct public works facilities needed to encourage industrial and commercial growth.

Non-Destructive Testing Symposium Papers Compiled

Those who were unable to attend the Institute of Gas Technology's symposium on nondestructive testing, or those who are unable to read their notes, may be interested in the volume of symposium papers just released.

The June symposium was the third on this subject sponsored by the Institute, and concentrated on steel and plastic pipe systems. The 300-page volume is priced at $25 and is available from George Price, Information Services, Institute of Gas Technology, 3424 South State St., Chicago, Ill. 60616.

NEW UNIT COLLATES SOLAR DATA FOR USE BY PRIVATE DESIGNERS

Another major piece in the nation's emerging solar energy network went into place last month when Commerce's National Oceanic and Atmospheric Administration began operating a calibration facility at its Environmental Research Laboratories in Boulder, Colo.

The facility calibrates and provides quality control for a network of solar radiation measurement instruments at 35 National Weather Service stations, and at a limited number of other sources.

With interest increasing in solar energy as an alternative source of heat and electricity, engineers and architects need to know the amount of solar radiation reaching the earth's surface in order to design solar energy conversion systems. The NOAA network of instruments, which make such measurements, records the amount of solar radiation to accuracies of 5 percent.

The new facility consists of an instrument calibration laboratory and solar radiation measurement unit. The latter contains varied instruments, some of which measure solar radiation throughout the entire solar spectrum while others concentrate on such regions as the ultraviolet, visible, and infrared.

The laboratory will test solar radiation measurement instruments from different manufacturers, so NOAA can calibrate all instruments accurately.

Data from the NOAA instrument network will receive preliminary processing and checking in Boulder before it is transferred to the National Climatic Center in Asheville, N.C. (part of NOAA's Environmental Data Service). Scientists there will add other meteorological data, including temperature, participation, and amount of cloud cover recorded at the same stations simultaneously and will publish the information for use by solar energy scientists, architects, and engineers.

The lab is receiving data from National Weather Service stations in Caribou, Maine; Burlington, Vt.; Boston; Cleveland; Indianapolis; Sterling, Va.; Greensboro; Nashville; Montgomery; Tallahassee and Miami; Madison; Omaha; Columbia, Mo.; Bismarck, N.D.; Dodge City, Kans.; Lake Charles, La.; Midland, El Paso and Brownsville, Tex.; Albuquerque; Grand Junction and Boulder; Lander, Wyo.; Great Falls, Mont.; Boise; Salt Lake City; Phoenix; Las Vegas and Ely; Seattle; Medford, Ore.; Fresno and Los Angeles; and Fairbanks.

First Unit In National Solar Reporting Network Goes On Line In Atlanta

The makings of a national solar energy information system are taking shape.

The first unit in a centralized, nationwide network to monitor the efficiency and performance of solar heating and cooling systems is now operating at the George A. Towns Elementary School in Atlanta.

The data gathering units, called a Site Data Acquistion Sub-System (SDAS), are being placed on selected solar-equipped buildings by NASA's Marshall Space Flight Center as part of the Energy Research and Development Administration's demonstration program for solar heating and cooling.

Demonstration projects at both residential and commercial buildings located throughout the United States and its territories are demonstrating solar systems to stimulate acceptance by the public and the housing industry.

The data gathering network will monitor operation of the solar heating and cooling systems at selected sites by collecting and reporting performance and climatic data. Sensors will measure temperature, humidity, wind, available sunlight, collector inlet and outlet temperatures, flow rates, and the performance of the energy storage system.

Solar system performance reports will be issued frequently to describe information such as solar energy available, solar energy utilized for space heating, cooling and domestic hot water, and other factors which describe the solar system efficiency and possible fuel savings.

Data from each site will be transmitted by a standard telephone line to a central computer system in Huntsville, Alabama, where engineers will analyze and evaluate the solar system's performance. Periodic analytical reports will be provided to the ERDA Technical Information Center at Oak Ridge, Tennessee, for distribution to users.

The centralized network assures a high degree of uniformity of data from widely dispersed sites to facilitate the most meaningful comparison. The SDAS units and the network have been developed and will be operated by the International Business Machines Corporation under contract to NASA.

A large-scale solar system for heating and cooling was added at Towns Elementary last year into the original heating system, with solar collectors mounted on the roof the building.

The demonstration project, which began operating in late 1975, is being conducted by the Westinghouse Electric Corporation and the Georgia Institute of Technology under a cost-sharing no-fee contract with ERDA.

LARGE FIRM'S ENERGY AUDITS HELP 'HAVE-NOTS' CONSERVE ON FUEL

The Federal Energy Administration has commended the Johns-Manville Corp., of Denver for voluntarily assisting other industries in identifying opportunities to reduce industrial energy waste. One of the country's first major firms to identify the importance of an energy audit, Johns-Manville, in response to a request from FEA and its Food Industry Advisory Committee, conducted an intensive energy audit of the meatpacking and baking industries over a six-month period.

The firm spent $150,000 of its own money, providing two experienced five-man audit teams of senior engineering personnel to conduct the pilot audits. Results of the audits showed a range of potential savings of from 12 to 40 percent of total energy used.

FEA says that the lack of energy audit case studies has created special problems for companies unable to afford outside consultants. In volunteering to perform this service for the meatpacking and baking industries, the energy agency said Johns-Manville demonstrated "a commendable awareness of the need for conservation and responsibility to the food industry and the nation."

The end-product of the Johns-Manville energy audits is a compendium of case studies of the meatpacking and baking industries which provides a summary of audit results, recommendations for increasing energy efficiency, a suggested reporting and monitoring system for tracking energy consumption, and illustrative appendices and attachments.

Meatpacking is the food industry's largest single consumer of energy, representing over 9 percent of the gross energy use. The estimated 100 trillion Btu's, or the equivalent of 17 million barrels of oil consumed each year, have doubled in cost in the last three years. The meatpacking industry now spends nearly $664 million for energy each year.

The total energy consumption of the baking industry exceeds 80 trillion Btu's, or nearly 14 million barrels of oil equivalent each year. Energy costs in 1972 were estimated at less than 1 percent of the value of shipments. In the past three years, these costs have doubled with more than $134 million now spent each year on energy alone by the bread and cake sector, and $44 million by the biscuit and cracker sector.

A Study of Energy Conservation Potential in the Meat-Packing Industry, and *A Study of Energy Conservation Potential in the Baking Industry*, will be made available by FEA for purchase from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20401, about mid-December.

PROFILES AVAILABLE OF 35 PRODUCTS UNDER STUDY BY COMMISSION

Thirty-five consumer products will receive priority attention from the Consumer Product Safety Commission during fiscal 1977. The Commission has just announced the availability of profiles on the products, which summarize the basic data from which regulatory decisions on remedial actions can develop.

The purpose in releasing the staff documents is to stimulate greater public participation in the Commission's decision-making process by inviting comment, additional data and analysis from interested organizations and individuals. The Commission does not endorse the specific data, analysis or conclusions contained in the profiles, nor do their contents indicate any determination or foreshadowing by the Commission of a specific course of regulatory or other remedial action.

The profiles represent a new approach to CPSC regulation, and constitute a focal point for the development of the agency's operating plan and budget. They summarize in one document the currently available data, information and analysis developed by Commission staff. Included are basic data on injuries and deaths, hazard patterns, exposure and causality, vulnerability of special population groups; analysis of the projected effectiveness of alternative remedies; and preliminary assessment of economic impact.

The product profiles were prepared by teams representing a cross-section of expertise within the CPSC staff. They will be updated regularly, incorporating new or refined data.

The 35 profiles are grouped into six hazard categories: Fire and burn, poison/chemical, electric shock, mechanical, home structures and systems, and population vulnerability (which refers largely to products used by babies and children).

The product profiles for determining remedial action have been prepared when a product hazard is suspected. They serve as a framework for a decision to undertake remedial action, do further research, or hold in abeyance. They constitute an essential element in Commission priority setting by identifying product specific injury, hazard and socio-economic data collection needs.

For a listing of individual products for which profiles are available, write Bureau of Information and Education, Consumer Product Safety Commission, Washington, D.C. 20207.

Battelle Gathers Data For Arson Information Center

The national campaign to wipe out arson is moving into high gear.

In the latest move of a drive sparked by the dramatic increase in arson incidence and losses in recent years, Commerce's National Fire Prevention and Control Administration (NFPCA) has awarded a six-month, $69,987 grant to the Battelle Memorial Institute to aid in collecting data for use in establishing a national arson information center.

The need for such an information clearinghouse for coordinating an attack on arson was recognized by a recent national leadership seminar conducted by NFPCA's National Fire Academy at Battelle's Columbus, Ohio, Laboratory.

Under terms of the grant, Battelle will provide NFPCA with a cataloged collection of printed material and a coded and indexed file of other data on arson which Battelle personnel will gather from various sources, including several cities where arson countermeasures have proven effective.

The information base provided by the research will support several types of anti-arson efforts, including public awareness programs and training programs in arson detection and investigation for public safety agencies.

Young Americans' Divorce Rate Triples

Proportionally, three to four times as many first marriages are ending in divorce among Americans now in their late twenties as among those of similar age 45 years ago, according to Commerce's Bureau of the Census.

The report shows that 13 percent of the married men born in 1945 to 1949 say their first marriage ended in divorce by the time they were in the 25-to-29-year range. By contrast, only three percent of those born in 1900 to 1904 reported that they were divorced by the time they had reached their late 20's. The corresponding increase for women was from 5 percent to 17 percent. Half of the increase for both sexes occurred during the last 15 years.

The data for this report came from a series of questions relating to marital and fertility history of Americans added to the Bureau's monthly Current Population Survey in June 1975.

The report indicates that few persons marry more than twice. Only about three percent of all persons 40 to 75 years who have ever married have done so more than twice. However, the divorce rate has more than doubled in the last dozen years, from 2.3 per 1,000 in 1963 to 4.8 in 1975.

White adults were more likely than black adults to have been married only once. According to the report, 64 percent of the white men as compared with 53 percent of the black men born between 1900 and 1959 and living in June 1975 had been married once. For women the corresponding proportions married once were over 68 percent for whites and 58 percent for blacks.

Four out of every five divorced persons eventually remarry. Among persons who had reached the age range of 50 to 75 years, the study found that five of every six men and three of every four women whose first marriage ended in divorce had remarried.

Widowed persons are less likely than divorced persons to remarry. Only one-half of the persons in their early fifties in 1975 had remarried after their first marriage ended in widowhood, as compared with four-fifths of those of a comparable age whose first marriage had ended in divorce. The proportion of widowers of this age who had remarried was about 25 percentage points above that of widows (65 versus 40 percent). As a partial consequence, the number of widowers in their early fifties (241,000) was only about one-third as great as the number of widows (774,000).

The report says that most of those who were known to have been divorced had been divorced only once. The data show that of women now in their late thirties who have ever married—those born between 1935-39—75 percent had been married once and never been divorced or widowed; 22 percent had been divorced; and the remaining 3 percent had been widowed.

Other findings in the report include:

—Most typical ages at first marriage are 20 to 23 years for men and 18 to 21 for women

—Most typical ages at divorce after first marriage are 25 to 29 for men and 20 to 24 for women

—The age group between brides and grooms is narrowing

—Most typical interval is 2 to 3 years from first marriage to divorce

—Seven years is the median interval between marriage and divorce

—Three years is the median interval between divorce and remarriage

Data in these reports are from a sample survey and are subject to sampling variability. A detailed explanation of the subjects appears in the report.

Single copies of *Number, Timing and Duration of Marriages and Divorces in the United States: June 1975*, Series P-20, No. 297, are available for 95 cents from the Superintendent of Documents, U.S. Government Printing Office, or Commerce District Offices in major cities.

DEPOSIT OR NO DEPOSIT *—The impact on energy, capital investment and labor of proposed legislation requiring deposits on beverage containers is examined in a new study by the Federal Energy Administration.*

Pros & Cons of Bottle Deposit Legislation Assessed In FEA Study

The Federal Energy Administration has completed a year-long study which examines the energy and economic impacts of proposed national legislation that would require a five-cent refundable deposit on beer and soft drink containers.

FEA has not yet taken an official position on the beverage container issue, pending review of the study.

The study examines specific impacts of a five-cent refundable deposit on all beer and soft drink containers (refillable bottles, nonrefillable bottles and cans), and its effect on the total beverage-related industry.

Three major areas of potential impact are analyzed: (1) changes in annual energy consumption; (2) changes in capital investment requirements; and (3) changes in labor requirements.

The industries that would be most affected by a mandatory deposit include retailers, beverage producers and distributors, container manufacturers, and producers of basic steel and aluminum.

To develop the potential impacts, the report initially projects energy, capital and labor requirements of the beverage industry assuming no deposit legislation is passed. These baseline projections are then compared to projections of what might happen after a deposit law. Results are reported for a 1982 steady-state situation, assuming that: (1) a law would be implemented in the late 1970s; and (2) by 1982, transistory effects will have been dissipated.

Several bills have been introduced in the last few years at the federal level and hundreds at the state and local levels, which would, if enacted, result in some form of government intervention in the beverage industry. At the state level alone, 140 laws are currently being considered for action in 36 states.

The most commonly proposed legislation calls for mandatory minimum deposits (usually five cents) on beer and soft drink containers. Mandatory deposits have been enacted in several states and localities, including Oregon and Vermont. These currently represent, however, only a small share of the national market for beer and soft drinks.

There is intense controversy, the report points out, over mandatory deposit legislation. Proponents of the mandatory legislation support its passage on the basis of the incentive it would provide for container reuse and recycling. The opponents of government intervention argue for consumer sovereignty, and cite the possible economic effects on the industries that would be affected.

Because of its controversial nature, FEA made available about one year ago draft copies of an initial study for public inspection and comment. They were sent to approximately 130 individuals in other government agencies, industry, labor, environmental groups, researchers, and other knowledgeable and interested persons for their critical review and comment. The responses received were incorporated as a part of the final study.

Limited copies of an *Executive Summary* of the report entitled *Energy and Economic Impacts of Mandatory Deposits* are available from the Federal Energy Administration Press Room, Office of Communications and Public Affairs, Washington, D.C. 20461.

The final study, 760 pages, will be available for purchase in the near future from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Direct Iron Ore Reduction Could Have Worldwide Impact

World output of iron through direct reduction, a process which could shift the traditional centers of world steel production, is growing at a rate of 4.7 million metric tons per year.

It could reach a 31.7 million metric ton level by the end of 1980, according to a recent report issued by Commerce's Bureau of Domestic Commerce. The report details the world-wide status and development of the process, and describes specific systems that are currently of interest to the industry. Data in the report were developed primarily by U.S. embassies overseas.

Direct reduction and the conventional blast furnace processes are both used to produce iron from its ores. They differ, however, in that the blast furnace uses coke, produces the iron in a liquid state, and is used chiefly to supply metal to the basic oxygen steel-making furnaces. The direct reduction process uses natural gas, produces the iron in a solid state, and is used primarily to supply metal to electric steel-making furnaces.

This process could affect the demand for metallurgical coal used in the production of blast furnace coke and the demand for ferrous scrap, since direct reduction iron is used in place of scrap as a portion of an electric furnace charge. Also, its development could affect the movement of ferrous materials in world commerce and could bring a shift in the traditional centers of steel production.

Copies of the report are available from the Materials Division, Bureau of Domestic Commerce, Room 2007, U.S. Department of Commerce, Washington, D.C. 20230.

DEMONSTRATION FUEL CELL POWER PLANT COULD BRING COMMERCIAL ONES BY 1980

An electric generating plant that is highly efficient, operates quietly, requires low maintenance, and emits water as a waste product. If this sounds like a utility engineer's dream, it is—but one which researchers at the Energy Research and Development Administration (ERDA) expect to make reality.

Under terms of a $42 million agreement with United Technologies Corporation, South Windsor, Connecticut, ERDA is supporting development and construction of a utility-size fuel cell power plant module. The three-year project consists of two phases: construction of a 4.8 megawatt (MW) fuel cell module demonstration plant, and a subsequent testing phase. The cost of the construction phase is being shared by ERDA ($25 million); the Electric Power Research Institute ($5 million); and United Technologies ($12 million).

Although relatively unknown, especially as a potential source of electricity for homes and businesses, the fuel concept has been around since Sir William Grove first demonstrated the principle in England in 1839. But it took the space program to get the idea literally off the ground and put it to useful work. Environmental concerns and the energy crisis are now bringing the fuel cell concept back to earth.

Energy sandwich

The fuel cell is a sandwich-like device featuring two electrodes with an electrolyte between them. The electrodes are surfaces where electricity is produced. The electrolyte is a "liquid wire" that transports electrons between the electrodes, as in a common auto battery.

Hydrogen, or a processed hydrocarbon which may be derived from natural gas, petroleum or coal, is fed to one electrode and air to the other. The chemical reaction that results produces power without noise or moving parts, with water as a by-product.

Since power is not produced by a combustion process, air pollution is not a problem. Unlike conventional nuclear and coal-fired power plants, which require large amounts of water for cooling purposes, fuel cells may be air cooled with low speed fans. These factors, coupled with their quiet operation make the fuel cell very acceptable from an environmental point of view.

A key advantage of the fuel cell is its modular design, allowing utilities to easily increase generating capacity as demand for electricity increases. ERDA engineers point out that this modular design, along with environmental acceptability, means that fuel cells can be installed much nearer to centers of heavy electricity usage than is possible with conventional plants. This could save distribution costs and reduce power losses in transmission.

Because of their inherent efficiency, fuel cells can deliver up to 30 percent more electricity from a given amount of fuel than conventional systems.

United Technologies has been conducting research on utility fuel cells since 1972 with financial support of nine electric utilities. Support for construction and testing of the 4.8 MW demonstration facilitity marks the first major role by ERDA in fuel cell development.

Northeast Council Gets Pledge Of Commerce Aid

Commerce Secretary Elliot L. Richardson has pledged the Department's support for the Council for Northeast Economic Action, which is being organized to address the mounting job and income problems of the northeast region of the nation.

Formation of the Council was announced by Dr. James M. Howell, senior vice president and chief economist of the First National Bank of Boston, who will serve as its chairman.

The Council will include representatives of government, industry, labor and financial institutions in the region.

Commerce's Economic Development Administration will provide financial and staff support.

John W. Eden, Assistant Secretary of Commerce who heads EDA, said the agency expects to provide more than $500,000 in grants to support the organization's programs. He said an application for approximately $140,000 to assist the Council with administrative expenses is being processed. Eden also expects to provide about $400,000 to help the Council establish a permanent institution representing public and private interests and to sponsor research relevant to the region's needs.

"We anticipate that this new institution will bring together regional decision makers in a collaborative process that will lead to public policies which are more responsive to the economic needs of the northeast," Richardson said.

The Council was expected to hold its initial session this month.

In addition to the establishment of a permanent institution to focus on the economic problems of the area, the Council will review existing economic studies on the region and identify gaps in knowledge about its economic problems. It will consider such economic issues as tax structures, transportation, energy, federal funding, and changes in the industrial base of the northeast.

Energy Costs Take Bigger Bite From New England Manufacturing Plants

It costs more to provide energy for New England manufacturing plants than for other sections of the country.

The average cost to manufacturers for 1,000 kilowatt-hour equivalents of energy was much higher in New England than in other parts of the United States—particularly the Southwest—in 1974.

The 1974 Annual Survey of Manufacturers, recently issued by Commerce's Bureau of the Census, says that the average cost for the 1,000 kilowatt-hour equivalents ranged from $2.59 in Texas to $9.98 in Connecticut during 1974.

Although the price of specific fuels varies from one part of the country to another, the major factor in the great disparity in costs between Texas and Connecticut stems from the different fuels generally used. Much of the energy generated in Texas manufacturing plants comes from the area's abundant natural gas while New England plants generally run on relatively expensive fuel oil.

This "energy advantage" also holds true for other regions of the country over New England, whose manufacturers paid more than twice as much for 1,000 kilowatt-hours of energy during 1974 than did manufacturers in the Mountain and West South Central States.

The report also contains revised national totals on fuels used by manufacturers, and the cost of those fuels in 1974. The total national manufacturers' fuel bill in that year was $19.5 billion, or about 43 percent higher than the year before.

Data on all major fuels consumed for power and heat by manufacturing establishments are presented in the report: coal, coke, distillate fuel oil, residual fuel oil and natural gas. Also included are statistics on the quantity and cost of purchased electric energy and the quantity of electricity generated and used in manufacturing plants.

The report is one of a series of reports with data from the Bureau's 1974 Annual Survey of Manufactures. It provides separate 1974 statistics for the fuels used in each of 451 manufacturing industries. Statistics are also provided for significant industry groups within each state and the District of Columbia. The report presents some data for 1973 and 1972 as well.

Copies of *Fuels and Electric Energy Consumed: States, by Industry Group; and, United States, by Industry*, M74(AS)-4.2, may be purchased for $2.80 from the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or from Commerce District Offices in major cities.

World's Largest Windmill To Test Practicality Of Large-Scale Wind Power

The largest windmill in history will be built during the next two years in a test program sponsored by the Energy Research and Development Administration (ERDA) and the National Aeronautics and Space Administration (NASA). General Electric and the Hamilton Standard Division of United Technology Corporation will design, fabricate, assemble, install, and test a 1.5 megawatt (1500 kilowatt) wind turbine electrical generating system. The large wind turbine is scheduled to be built in 1978 at a site selected by ERDA from among 17 high-wind locations under study. Although experimental in nature, the system will be located at a utility company site and will supply electricity to the local electric system for use by the general public. The purpose of this test system is to determine the economics and operating characteristics of large wind turbines when coupled to conventional power plants.

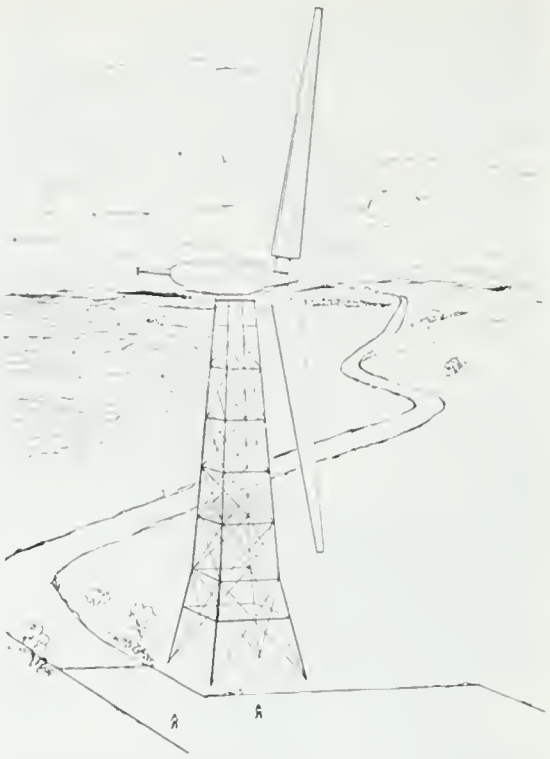
The windmill, to be the largest ever built, will have two slender fiberglass rotor blades spanning 200 feet, perched on a 150-foot tower. The windmill will rotate at 30-40 revolutions per minute in winds of above 11 miles per hour and will reach its full power output at winds of 22 miles per hour. At a site with average wind speeds of 18 m.p.h., for instance, this machine could produce enough energy to supply over 500 homes.

Earlier version abandoned

When completed, the 1.5 MW wind turbine will be bigger than what was the largest windmill in history—the 1.25 megawatt 175-foot diameter Smith-Putnam system built in the 1940's at Grandpa's Knob, a hilltop near Rutland, Vermont. That project encountered some structural problems, but since it could not compete economically with the then low cost of fossil fuels, private funding was insufficient to perfect the system and it was abandoned.

Now, however, with changing fuel costs and the technological advances of the last 30 years, it is believed that significant improvements can be made in wind system capability, economics, and lifetime – factors that are presently the major obstacles to the practical use of wind energy. The initial 1.5 MW systems are designed for locations with relatively high winds, but research is under way on systems for areas with gentler winds.

The largest currently operating wind turbine is the 100-kilowatt 125-foot diameter system built for ERDA by NASA-Lewis Research Center at the Plum Brook test area near Sandusky, Ohio. It is being used to identify and solve technical problems associated with large wind turbines, and will be used in the future to test advanced components.



BIGGEST IN WORLD—*Two experimental 1.5 megawatt wind turbine generating systems to be built by ERDA will be the largest ever made.*

Two more powerful versions of this system will be built shortly to provide information to help in designing the larger machines, and to test the usefulness of this size system to smaller utilities and applications.

In addition to testing large wind energy systems for electrical power generation, ERDA also is investigating and developing small (5 to 10 kw) windmills that could be used by individual rural homes or farms, and performing research on advanced unconventional windmills. Considerably more research and development is anticipated, however, before reliable and large scale utilization of these systems can be contemplated.

Federal Agencies To Use Solar Hot Water Heaters

Three major agencies which account for the great majority of federal facilities across the country are working to determine how and where they can best harness the sun to provide hot water for their many installations.

Federal Energy Administrator Frank G. Zarb said the intent is to make the Federal Government "a customer of solar energy" and thus help reduce the high cost of solar collectors.

In cooperation with FEA, Zarb said, "the Department of Defense, the General Services Administration and the Veterans Administration are identifying specific opportunities for the use of solar hot water heaters in their facilities."

"For the industry," he pointed out, "this could mean several million additional square feet of production over the next few years, more volume which should help lower the cost of production and make solar heated water even more competitive than it is."

Zarb noted that the Department of Defense bases, Veterans Administration hospitals and branches, and General Services Administration-managed office buildings and laboratories, constitute a heavy majority of federally-controlled facilities across the country.

As the three agencies convert to solar water heating wherever feasible they should increase the demand for solar technology, thus reducing costs as mass production techniques are adopted.

"And that means," Zarb pointed out, "less oil and natural gas used to heat water, a growing solar industry, and more jobs for Americans who will be needed to design, manufacture, and install solar equipment."

The FEA Administrator also said steps will be taken to reduce the high cost of installing solar technologies in residential and business buildings by providing adjustments "in the way we build and finance new construction, and renovate existing buildings."

"Twenty-five percent of the energy used in this country goes for heating and cooling buildings, and for heating water," Zarb said. "That means that this nation has a profound economic and political interest in the most economical and secure source of energy to perform these functions. That can be solar energy."

Book Offers Overview Of Merchant Marine

Why does the United States need a U.S. flag merchant fleet? Some of the reasons can be found in a new book entitled *The United States Merchant Marine: A Naitonal Asset*, prepared by the National Maritime Council to provide an understanding of the functions of the privately-owned and operated cargo fleet sailing under the U.S. flag.

The book explains the conditions under which U.S. flag cargo ships must compete in world trade, and the role the American merchant marine plays in national security and the economy.

The National Maritime Council, which consists of all segments of the American maritime industry, U.S. flag carriers, shipyards, maritime-related labor unions and the U.S. government, was established in 1971 to assure importers and exporters the most competitive and dependable U.S. flag ocean transportation system.

Copies of the paper-bound book, priced at $5.95, may be ordered from: National Maritime Council, P.O. Box 7345, Washington, D.C. 20044 (202-377-3325).

Bicentennial Travel By International Visitors Breaking All Records

The 1976 Bicentennial year will be a record-breaker for international tourism in the United States, according to Commerce's United States Travel Service (USTS), if current projections are borne out at year's end.

During the month of July, traditionally a peak tourism month and this year the focal point of Bicentennial celebrations, international visitors to the United States increased by 12.8 percent over the previous July, to a total of 2,525,696. Arrivals from Canada numbered 1.7 million, an 11 percent increase over 1975. Mexican travel to the United States, however, declined 4.4 percent from the previous year. While the increased cost of passports in Mexico may have been a contributor to the decline, July 1975 had been an atypically high travel month for visiting Mexicans.

Visitors from countries other than Canada and Mexico increased 29.3 percent in July 1976 over the previous year. European arrivals increased 34.4 percent, largely the result of rising travel volumes from the United Kingdom (21.7 percent), West Germany (17.5 percent) and France (59.2 percent).

Asian arrivals rose 22.3 percent over the previous year. The volume of Japanese arrivals was 5.4 percent ahead of the 1975 July total. July was only the second month this year in which a rise in Japanese arrivals was recorded.

Australian visitors increased by 47.5 percent, and Venezuelans by 40.1 percent. Visitor arrivals from Brazil declined for the first time this year, apparently the result of restrictions imposed on international travel by that country's government.

Based on the revised international ravel forecast, USTS estimates that otal international travel receipts for the year could total approximately $6.7 billion, 16.7 percent above the $5.7 billion received in 1975. This includes $5.7 billion which international visitors are expected to spend for travel and purchases while in the United States. The other $1.0 billion is expected to be paid to U.S. carriers by international visitors for ransportation to and from the United States. Overall, total travel receipts in 976 are expected to be somewhat lower han originally projected by USTS, due o the travel-suppressing effects of the evaluation of the Mexican peso.

Should the volume of American citizens raveling abroad develop as anticipated, he U.S. travel account would be in deficit y approximately $3.26 billion. This would epresent an increase (4.2 percent) over he travel deficit recorded in 1975.

Calendar Of Business Events

Nov. 9-11—Anaheim — Fifth Pollution Engineering Congress, Convention Center. Contact: Clapp & Poliak, 245 Park Ave., N.Y. 10017.

Nov. 9-11—St. Louis — Clinic on gear manufacturing and processing, Chase Park Plaza Hotel. Contact: Jim Meadows, Soc. of Manufacturing Engineers, 20501 Ford Rd., Dearborn, Mich. 48128 (313-271-1500, x312).

Nov. 11—Appleton, Wis. — Metrication Seminar, Country Aire Restaurant. For information, John W. Wilkie, Fox Cities Chamber of Commerce (414-734-7101).

Nov. 11 — Houston — Fundamentals of microprocessing (first of four Thursday morning sessions). Contact: Rice U., Off. of Continuing Education, Houston, Tex. 77001 (713-527-8101, x2599).

Nov. 12-18—Houston—Soc. of Industrial Realtors annual meeting, Houston Oaks. Contact Robert E. Boley, Natl. Assn. of Realtors, 915 15th St., NW., Washington, D.C. 20005 (202-628-5300).

Nov. 14-16—Andover, Mass. — Prospects for Audiovisual Systems, Institute for Graphic Communication Conference Ctr. For information, IGC, 375 Commonwealth Ave., Boston, Mass. 02115 (617-267-9425).

Nov. 15-16—New Orleans — Proposal Preparation & Source Selection seminar, Royal Sonesta Hotel. For information, AIAA Seminars, 444 West Ocean Blvd., Suite 1403, Long Beach, Calif. 90802 (213-437-7465).

Nov. 15-16—New York—Executive Self-Management seminar, Barbizon Plaza Hotel. Sponsor: The Wharton School. For information. Heidi Kaplan, New York Conference Mgt. Ctr., 360 Lexington Ave., N.Y. 10017 (212-958-7262).

Nov. 15-16—New York—New Products: A Systematic Approach, Barbizon Plaza Hotel. For information, Heidi Kaplan, N.Y. Conference Mgt. Ctr., see address above.

Nov. 15-17—Washington—Program Budgeting, Georgetown Univ. For information, Continuing Mgt. Education, Georgetown U., RCA Bldg.-Education Ctr., 1901 N. Moore St., Rosslyn, Va. 22209 (703-525-6300).

Nov. 15-18—Atlanta—Seminars on management and financing in the construction industry, conducted by Jack Miller. For information, Madeline Graeter, Group Communications, Inc., 6101 Southwest Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

Nov. 15-18—Dallas—Computer-Aided Design & Computer-Aided Mfg. Conference and Exposition, Dallas Hilton Hotel. For information, CAD/CAM IV, Society of Manufacturing Engineers, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500).

Nov. 15-19—New York—Injection Molding seminar, Barbizon Plaza Hotel. For information, Heidi Kaplan, New York Mgt. Ctr., see address above.

Nov. 16—Memphis—14th Annual Business Outlook Conference, Memphis State Univ. Contact: Memphis District Office.

Nov. 16-17—Washington—The Future of Productivity conference, L'Enfant Plaza Hotel. For information, Sue Tietze, National Center for Productivity and Quality of Working Life, 2000 M St. NW., Suite 3002, Washington, D.C. 20036 (212-254-9890).

Nov. 16-18—Washington—Finance & Accounting for Nonfinancial Managers seminar. Georgetown U. For information, see address above.

Nov. 17—Chicago—Institute of Gas Technology 35th Annual Meeting, IIT Ctr. For information, IGT, 3424 South State St., Chicago, Ill. 60616 (312-567-3731).

Nov. 17—Gaithersburg, Md.—Computer Networking Symposium, National Bureau of Standards. Sponsors: NBS & IEEE Technical Committee on Computer Communications. For information. Marshall Abrams, B212 Tech. Bldg., NBS, Washington, D.C. 20234 (301-921-2601).

Nov. 19—Denver—Business Opportunity/Federal Procurement Conference, Executive Tower Inn. Sponsor: Sen. Gary Hart. For information, Lon McCain or Kathie Capra, c/o Sen. Hart, 1200 William St., Denver, Colo. 80218 (303-837-4421).

Nov. 22—Woodbury, Long Island, N.Y.—What You Need To Know About the New Tax Reform Law, Fox Hollow Inn. For information, Long Island Assn., 131 Jericho Tpke., Jericho, N.Y. 11753 (516-333-9300).

Nov. 22-24—Miami—Manufacturing Management for Multi-Plant Operations seminar, Doral Hotel On-the-Ocean. For information, Heidi Kaplan, N.Y. Conference Mgt. Ctr., see address above.

Nov. 23—Bowling Green, Ky.—Metric Workshop, Bowling Green-Warren Cty. Chamber of Commerce. Contact: Memphis District Office.

International Commerce Report

Port Plans In Mideast Attract U.S. Expertise

SEMINAR PARTICIPANTS REPORT BUSINESS PROSPECTS IN SAUDI ARABIA, EGYPT, MOROCCO

Heavy port congestion in Saudi Arabia, and planned expansion of port operations in Egypt and Morocco—resulting in part from mushrooming imports—are increasing demand for construction equipment and cargo delivery systems.

Seven U.S. industry leaders, conducting technical seminars last month in Dhahran, Jidda, Alexandria, and Casablanca, found substantial interest in the equipment and services offered by their firms.

Nine of these technical seminars were conducted by the Commerce Department for January-September of this year in various international markets. The seminars are focused around a selected technology that represents a marketing opportunity for U.S. industry. Practical, problem-solving presentations by representatives of the participating U.S. firms are the keynote. Business resulting from contacts made during the sessions is projected at multi-million-dollar levels.

The recent port development seminar was conducted under the chairmanship of Armour S. Armstrong, Director of Port Development for the Commerce Department's Maritime Administration. The participants presented papers on port consulting and engineering, communications and control equipment, shipyard service and repair systems, mobile self-elevating cargo handling berths, anti-pollution equipment, anti-corrosion materials, and industrial trucks in the stevedoring industry. Government port officials in the countries visited contributed to the discussions. Many contacts made during the meetings are likely to be productive as long-range undertakings are pursued.

The Saudi Government's port expenditures are expected to reach $7 billion in the next three years. Drafters of the country's current five-year development plan recognized that its success, in terms of sectoral targets, would rest to a large extent on the amount of cargo that could be passed through the country's major ports of Dammam and Jidda. Last summer, for example, at Dammam, general cargo was having berthing delays of as much as 90 days.

By year's end, many kinds of improvements were under way, as steps were being taken to open traffic lanes, modernize operations, and expand facilities. As a result, more cargo is passing through the port than ever before, yet many bottlenecks remain. Interest here centered especially on cargo delivery systems—equipment, manpower, supporting services—covering all phases of transfer from ocean-going vessel to inland delivery point.

In Egypt, plans are under way for development of the ports at Alexandria, Damietta, Dekheila, Safaga, Said, and Suez, and for the widening and deepening of the Suez Canal. This concerted effort points to business opportunities in design, consulting, engineering, construction, and equipment sales.

Morocco's current five-year plan provides for expansion of the ports of Casablanca and Mohammedia and the fishing port of Nador on the Mediterranean, and construction of a new port at Jorf El Asfar. Some $150 million is to be spent on the Casablanca port, for which various kinds of cranes, trucks, loaders, and lifts will be required. For Mohammedia, tenders are expected to be announced toward year's end; jetty expansion and pier construction are scheduled to begin in mid-1977.

Companies participating in the seminar were: Eaton Corp., Philadelphia; Everseal Mfg. Co., Inc., Ridgefield, N.J.; General Electric Co., Lynchburg, Va.; Hydranautics, Coleta, Calif.; Marathon Le Tourneau, Longview, Tex.; John J. Mc Mullen, New York; and Seaward International, Falls Church, Va.

AT JIDDA PORT—*Seminar members watched from a few hundred yards away, as a U.S.-made helicopter (below) unloaded cement from a barge. This unusual chopper operation, the major part of which calls for unloading directly from ships, can move 2,000 tons a day. Photo at right: Director of Port Authority of Jidda (center), other officials at seminar reception.*

Multilateral Trade Negotiations

This article is another in a series of progress reports on the multilateral trade negotiations, prepared by the Commerce Department Office of Int'l Trade Policy.

GENEVA

The **MTN Tariffs Group** met Oct. 13 and 14 to receive tariff reduction formula proposals from Japan and Switzerland. The Group had earlier received the proposals of the U.S. and the European Community (see *Commerce America,* April 12 and Aug. 16).

Japan proposed the formula Z = 0.3X + 3.5, where Z is the final reduced duty and X is the current duty. Japan stated that it had industrial products in mind in proposing the formula, but that tariff reduction offers on agricultural products ought to be made in line with the formula.

Switzerland proposed the formula Z = 14 X/ (X+14), where Z is the final reduced duty and X is current duty. Switzerland said that its formula ought to apply principally to industrial products but, like Japan, did not rule out its application to agricultural products.

Both formulas are designed primarily to "harmonize" tariffs, i.e., reduce higher tariffs by greater percentages than lower tariffs. The Japanese formula, however, would not apply to tariffs at or below 5 percent.

In its comments on the two proposals, the United States reiterated its position that the tariff reduction formula should apply to both industrial and agricultural products. The U.S. noted that 75 percent of developed country tariffs are in the range of 15 percent or less. In this range, where most trade flows, both formulas fall short of the reductions which would be made by the U.S. formula of Y = 1.5X + 50, where Y is the percentage reduction up to a maximum of 60 percent, and X is the current duty. In comparison to the Community formula, a four-step process of calculating the final duty, with each step involving a reduction of the tariff by its own percentage, the Swiss formula would result in deeper cuts at all tariff levels. The Japanese formula would result in marginally deeper cuts of tariffs between 8 and 27 percent, but would result in lesser reductions at all other tariff levels. For example, the four formulas would reduce a 10 percent tariff to a final tariff as follows: U.S., to 4 percent; Swiss, to 5.8 percent; Japanese, to 6.5 percent; the Community, to 7 percent.

The U.S. pointed out that the Japanese formula would, from the start, fail to reduce about 17 percent of developed country tariffs by not reducing duties 5 percent and below. The U.S. was strongly supported in this criticism by other delegations. The U.S. also noted that both the Japanese and Swiss formulas would result in overall cuts in developed country tariffs considerably smaller than would be achieved by the U.S. formula.

With regard to exceptions to a tariff cutting formula, the U.S. reiterated its March position that all countries should use "maximum restraint to minimize exceptions." The consensus was that countries should exercise maximum restraint in taking exceptions to whatever formula is adopted.

The tariff reduction formula and rules and procedures for exceptions make up two of the three elements of the tariff negotiation plan. The Group also discussed the third element, special and differential treatment (S&D) for less developed countries (LDCs). Primarily, LDCs want the Group to agree in principle to a number of S&D measures which would result in provision of more favorable treatments of products of interest to them. The next meeting of the MTN Tariff Group, scheduled for Dec. 15, will focus on this issue. Agreement on a tariff cutting formula, adoption of rules and procedures for exceptions, and selection of S&D treatment for LDCs are not expected before early 1977.

At the **MTN Sectors Group** meeting Oct. 12, the Canadians proposed a round of bilateral and plurilateral discussions in order to set out in detail their specific proposals for dealing with nonferrous metals (lead, zinc, nickel, copper, etc.) and forest products in a sectoral context. The Canadian proposal seeks a liberalizing of trade in these products which would go beyond the general negotiating approach, and attempts to expand trade for processed and finished products under stable conditions. Although several countries expressed reservations about the appropriateness of the sectoral approach in general, the Group agreed to the Canadian request for informal discussions.

The U.S. reaffirmed its intention to present a sectoral negotiation proposal for steel at a future meeting of the Sectors Group. Also discussed at the meeting was a feasibility study prepared by the GATT Secretariat on handling handicrafts as a separate sector. Following a suggestion by India, the Secretariat agreed to compile additional data concerning handicrafts. While commending the Secretariat on the work it has done in compiling data concerning sectors of interest to various countries, including electronics, chemicals, and heavy electrical equipment, the Group delayed substantive discussion of the data until the next meeting.

Government procurement practices were the focus of discussion in two separate international forums during October. In the Organization for Economic Cooperation and Development (OECD), the **Trade Committee Working Party** held its first substantive discussions on this subject since December 1975.

The OECD unit had an exchange of views on outstanding issues in its draft government procurement code, but progress was limited in overcoming what are considered rather basic differences on certain code provisions. A report was approved on the status of the OECD work on government procurement for transmittal to the GATT Secretariat.

The **GATT Nontariff Measures Subgroup on Government Procurement,** at its first meeting Oct. 20, considered organizational matters and took preparatory steps toward starting substantive work on government procurement issues early next year.

The U.S. noted that much work has gone into the development of the OECD draft government procurement code and that the Subgroup should review the work of the OECD, including the code itself.

The Subgroup also requested the GATT Secretariat to compile a list of topics related to the government procurement issue for inclusion in its work program.

The less developed countries emphasized their interest in including this topic within the MTN and in receiving special and differential treatment (S&D) as part of developed country procurement practices.

The **MTN Tropical Products Group** concluded its sixth meeting Oct. 20 with agreement that offer-making countries should work toward implementation of concessions by Jan. 1, or as soon thereafter as consistent with domestic procedures.

The Group agreed that offer-making countries should notify details of their concessions and plans for implementation to the GATT by Dec. 15 or the earliest possible date thereafter.

As noted previously in these articles, the United States has taken the position that contributions by the LDCs will be necessary for the U.S. to implement its offers.

Within this context, a number of bilateral and plurilateral consultations are expected to take place before the Group next convenes. It is believed that these consultations may offer the opportunity of narrowing some of the differences now existing between the developed countries and the LDCs on the question of contributions. The time of the next meeting is to be determined by the Group's chairman and interested delegations.

OVERVIEW AT THESSALONIKI—*U.S. exhibits at this annual international event attracted record crowds and netted sales that topped those of earlier years.*

Thessaloniki Fair Draws Middle East Customers; U.S. Results At Record

The new strategic position of Greece relative to Middle Eastern commercial affairs was reflected in the record success last month of U.S. participation in one of that country's major international fairs.

A gap has been created by the scattering of the Beirut-centered Middle East international business community, and Greece to a large extent seems to be filling this gap. The 41st Thessaloniki International Fair drew noticeably wider attendance, including representatives from major Middle Eastern and North African countries and East Europe.

Topping all previous U.S. participations in this annual fair, American companies recorded more than $500,000 in floor sales, and estimate orders in the next 12 months at almost $15.4 million. Even more significant are the ten representatives appointed by the U.S. firms during the fair, plus another 13 under negotiation at its close. One company alone reported new "market penetrations" for Egypt, Kuwait, Algeria, Sudan, and Libya.

Among the products displayed at the U.S. pavilion, where attendance was 67 percent over that of 1975, were agricultural tractors, aircraft, earthmoving equipment, automobiles, computers and software, instant cameras, vending machines, calculators, and plastics. The local agent for Harley Davidson Motor Co., which exhibited for the first time in the U.S. pavilion and reported impressive floor sales, said, "Very pleased. Harley Davidson will participate in 1977 with larger space." Joy Manufacturing Co.'s generating and construction equipment also had its first exposure in Greece. The firm reported 12 excellent leads and good sales prospects, and hopes to participate in 1977 in the outdoor area.

The American Motors display of Pacer and Jeep automobiles attracted considerable attention. Atlantic Motors, local representative of AM, reported that the company would participate next year "with larger space indoors and an outdoor area." Ford introduced a heavy-duty truck model and large agricultural tractor, selling two units during the fair. Condellis S.A., Ford's local representative, predicts 12-month sales of almost $400,000 as a direct result of its outdoor exhibit.

EXHIBITION IN AMSTERDAM UNDERSCORES MARKET FOR U.S. WATER EQUIPMENT

A substantial and rapidly growing European market for water-use equipment helped to make a U.S. exhibition one of the highlights of AQUATECH '76, a major international water equipment exposition held in Amsterdam this fall.

Rising concern about water quality, widespread implementation of stringent legislation, the recent drought in many parts of Europe and Africa, and agreement among 12 nations to fight pollution in the Mediterranean Sea—all have heightened interest in equipment for pollution control, irrigation, desalination, and conversion.

The 23 U.S. exhibitors during this year's biennial event recorded sales of $2.4 million and have projected sales for the next 12 months at $11.8 million. In addition, 55 licensing, joint venture and representation agreements were concluded, and another 136 are still under active negotiation.

In 1975, the Netherlands, Belgium, France and Germany alone spent an estimated $650 million for water purification and pollution control equipment and instrumentation. Their investment in such products is expected to exceed $2.6 billion during 1976-78.

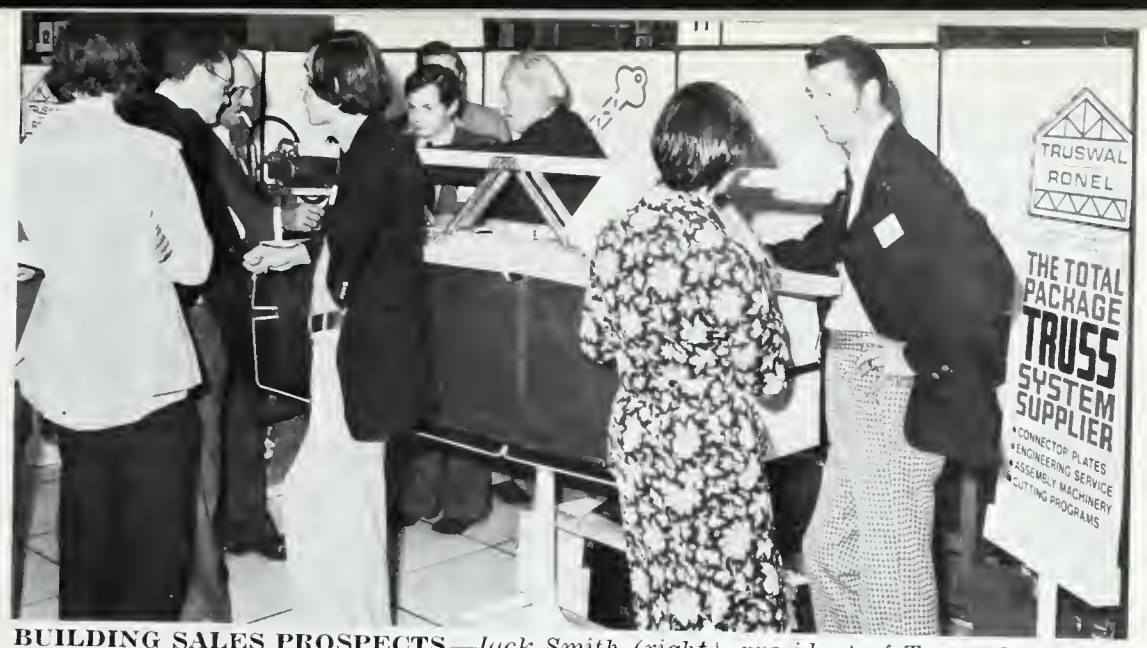
Diversity was the keynote of the U.S. exhibition. The products displayed ran the gamut from pipes and pumps to complete purification systems and represented the latest technological advances. Many items had not been exhibited in Europe before—a situation which, coupled with a high regard for American expertise, further enhanced interest in the U.S. displays.

Of the several hundred firms participating in AQUATECH '76, the majority were from the United States and Europe. For the first time, however, AQUATECH was held in conjunction with the Interna-

POINTERS FOR NEW AGENT—*George Brown, U.S. exhibitor at Aquatech '76, explains to one of his newly appointed agents exactly what would be expected of him.*

tional Water Supply Congress, and visitors to both events came not only from Europe but from Africa and the Middle East.

Earlier this year Spain, France, Monaco, Italy, Greece, Egypt, Lebanon, Morocco, Israel, Turkey, Cyprus, and Malta signed a convention committing them to take all measures to combat pollution of the Mediterranean. They agreed to establish joint programs to monitor the level of pollution and to fight against dumping from ships and aircraft as well as against discharge of harmful matter from coastlines. As these steps are taken, demand for equipment will increase.



BUILDING SALES PROSPECTS—*Jack Smith (right), president of Truswal Systems, Inc., a new-to-market firm at Paris U.S. Trade Center show, expects to sell about $1 million worth of his roof truss assembly equipment here during the next 12 months.*

U.S. Exhibitors In France Find Favorable Market For Building Equipment

Building and construction equipment and supplies proved to have a profitable market for the 33 companies that participated last month at the U.S. Trade Center exhibition in Paris.

Twenty-five exhibitors were new to the French market and used the opportunity to gage product acceptance as well as generate sales and representation leads in Western Europe. Nineteen firms expect to conclude agreements with one or more agent/distributors in the next 12 months, and the sales expectations of all exhibitors during this same period are over $9 million.

The French building industry is very receptive to American products that are quality and price competitive. Government officials have mandated the renovation of a large number of sub-standard residential buildings and the installation of efficient heating insulation and energy conservation of all types throughout France. Additional market opportunities exist with the creation of all-electric homes, the development of new coastal and mountain holiday/tourist resorts, public works expansion, and do-it-yourself products.

Show In Singapore Confirms Southeast Asian Interest In Computer Technology

The record response to a recent U.S. Trade Center computer exhibition in Singapore reflects an increasing interest by government, business, and industry in computer technology, making the prospect for U.S. sales brighter than ever.

The exhibition generated more than $500,000 in floor sales and presages some $4.5 million worth of orders for computers and peripheral equipment in the region. More than 13 percent of the registered visitors were from Asian countries outside Singapore.

"During my ten years in this business in this area," said one of the 17 participants, "I have not seen such a good response and support to this sort of exposure."

The show was scheduled to coincide with the First Southeast Asia Computer Conference, which brought together government officials and end users from neighboring nations. Many conferees visited the exhibition and were impressed by the wide range of equipment—much of which is not yet available in their own countries. Several exhibitors reported potential sales to government agencies in Singapore, Indonesia and the Philippines.

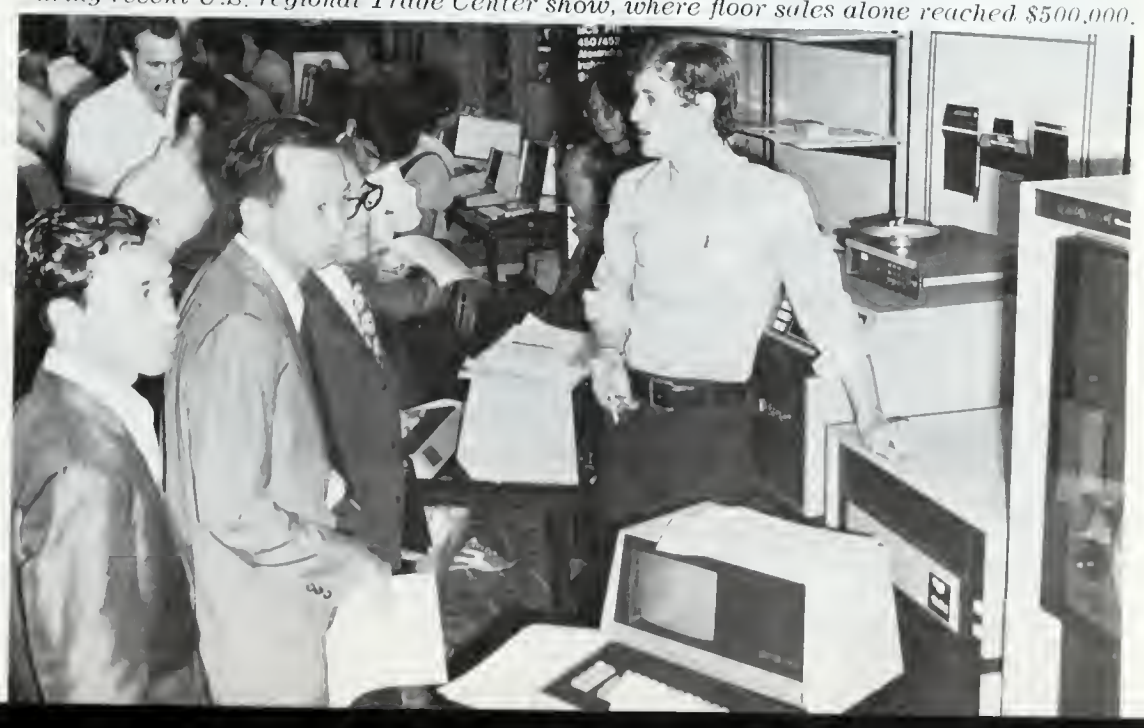
The Commerce Department has forecast an annual growth of at least 25 percent in the export of U.S. computers and peripheral equipment to Singapore through 1978. Much of this growth is expected to occur in the use of mini- and micro-computers. A projected average annual growth of $1.3 million in the Singapore computer market is expected to generate $12 million in annual sales by 1980. The market for computer related equipment is slated to grow to $8 million annually by the same year. With a better economic outlook for the country, these estimates could easily be exceeded.

The recently acquired larger premises for the Singapore Trade Center also contributed to the success of the exhibition. The more spacious ground floor exhibition hall at the new Center, an increase in area of 42 percent over the previous premises, provided for more comprehensive displays than had been previously possible.

New International Shows Set For Singapore In 1977

Two new international exhibitions are scheduled to take place in Singapore next year: The International Boat Show, June 17-22; and the International Exhibition of Materials Handling & Construction Machinery, Oct. 5-9. Each is the first of its kind in the Southeast Asian region. For additional information, contact the organizers: International Fair Promotion and Marketing Services Pte. Ltd. (INFAMA), 51-A, Factory 4, Kampong Bugis, Singapore 12; telephone, 2588276; cable, INFARPROM.

COMPUTERS TALK IN SINGAPORE—*Equipment exhibits drew attentive customers during recent U.S. regional Trade Center show, where floor sales alone reached $500,000.*



Doing Business In Nigeria Sometimes Complicated, But Rewards Can Be Worthwhile

Although the pace will ease, the Nigerian economy is expected by the U.S. Embassy in Lagos to show continued impressive growth.

A February coup attempt shook confidence and caused a reassessment of national goals and resources, but economic development remains the government's top priority, and the new budget demonstrates that development will now be approached with a more realistic understanding of the country's limitations. Oil revenues have risen in recent months, and a high level of business activity should be maintained. Imports approached $6 billion in 1975 and should continue to climb, despite government discouragement of nonessential items, to over $11 billion annually in 1979-80 as anticipated by central planners.

This broad export market and the prospects offered by an ambitious development plan make Nigeria an important market for American goods and site for consideration of American investment.

Nigeria's commitment to rapid development, however, brings associated problems. Inflation continues at an annual rate approaching 50 percent, and its varied causes such as shortages of goods and monopoly conditions in some sectors of the economy are beyond the government's short-run control. Port congestion, while lessened by strong government measures, will continue to constrain growth until expanded facilities are completed in the next five years. Food production still lags behind demand, and the country's import bill, which is almost four times greater than it was three years ago, contributed to a deterioration in Nigeria's balance of payments position in 1975 relative to 1974.

Nevertheless, the Third Development Plan, even if scaled back, will continue to call for enormous investment spending in the industrial, transportation and social sectors and should stimulate solid economic growth affording important opportunities to foreign business.

The dimension of growth and the challenge of grappling with it are exemplified by the words of an American communications representative: "One goes along a road traveled a year or two ago and finds a new town of 50,000-100,000 people, not even on the map!" In the past year the achievements of U.S. firms have shown an increased sophistication, alertness and knowledge of marketing in Nigerian conditions. There has been more sustained sales effort, more and longer visits from abroad, and the establishment of a score of new local offices.

Sales rose, but share fell

Not surprisingly, U.S. exports to Nigeria rose from $346 million in 1974 to $681 million in 1975, a 97 percent gain. At the same time, however, the U.S. share of Nigerian imports declined from 12 to 11 percent. American firms in such fields as port decongestion and telecommunications have mastered complicated bidding procedures and won contracts, but other contracts have been lost to aggressive, cost-conscious foreign companies who maintained a continuing presence in determined pursuit of projects.

U.S. exporters will find that Nigerians have a keen appreciation for American products and services. They should be especially alert to a number of developing fields. The first large purchases of American trucks by the Nigerian Government in over a decade and a crucial reshuffling of local distributors for several leading lines of American automobiles are spearheading U.S. vehicle penetration of the Nigerian market. This penetration can be reinforced and widened by more marketing activity on the part of U.S. car, bus and truck manufacturers and by producers of automotive accessories/parts and service/repair equipment.

The Universal Primary Education (UPE) program, a vital activity because only approximately 12 percent of school-age children now attend school in Nigeria, has begun. The program requires extensive inputs ranging from visual aids and textbooks to classrooms and teachers' colleges.

In the transport sector, both Nigerian Railways and Nigerian Airways are approaching extensive overhauls and acquisition of new equipment. In power generation extensive areas of Nigeria have no source of electricity except for portable generators; U.S. firms could show more initiative in this category. Agriculture needs all kinds of implements from hand tools to medium tractors. Output generated by "Operation Feed the Nation" has spurred interest in cold storage facilities.

Government accent on increasing protein intake has repeatedly pointed to the fishing sector. Here about ten companies are actively engaged and offer a sales potential for fishing boats, storage and processing equipment. There also appear to be good opportunities for sales of water craft in Lagos and other port cities. Communications equipment of all types remains in high demand.

There is a visible surge in consumer goods potential. In the past few months two of the leading wholesale-retail networks in Nigeria have turned to the U.S. Embassy to express interest in buying a gamut of American-produced items. Competition is strong from Japan in electronics and electrical appliances and from the United Kingdom and Sweden in tools. Nonetheless, in most consumer categories the United States should be able to present a forceful competitive presence. Excellent potential looms in franchising operations, especially in automotive repair, shoe repair and fast-food restaurants.

Design, engineering, and construction firms can compete for an impressive array of projects including downstream petroleum projects, railroad, highway and bridge construction, hydroelectric plants, steel mills, irrigation systems, school and hospital construction, housing developments and water and sewerage systems. The building shortage, felt by both public and private sectors, calls for extensive, accelerated programs, and there are more

CONFERRING IN LAGOS—*M. F. Biggs, of E-Systems—Montex Div., Salt Lake City, talks with technical staff of the Nigerian Ministry of Transportation during visit of U.S. Aviation & Ground Support Equipment trade mission early this year.*

calls for prefabrication to solve the impasse. Producers of prefabricated structures face a market ranging from temporary quarters for construction site workers to permanent school, office and factory complexes. There are also opportunities in a wide range of consulting projects.

To achieve and sustain the level of economic activity called for in the Third National Development Plan, Nigerian planners have acknowledged the need for a large influx of foreign technical and specialized manpower, and the government has promised its cooperation in assisting these people to enter the country. At the same time the government remains committed to a strong Nigerian participation in development.

The Enterprises Promotion Decree, first issued in 1972, was revised in June 1976 to increase Nigerian participation in local business activities. All enterprises must now have full or partial Nigerian participation. New Schedule I identifies those types of enterprises which must have full Nigerian participation. New Schedule II lists those enterprises which are reserved for 60 percent Nigerian participation. Enterprises covered by new Schedule III are reserved for 40 percent Nigerian participation and include all business activities not listed in Schedules I or II.

Other factors are important

Knowledgeable Nigerian spokesmen point out that the money which the U.S. partner puts into the business arrangement is not the crucial and only factor; equally important are the management and responsibility elements contributed.

The government is especially desirous of attracting industries which will bring new technology, utilize local raw materials, and import the expertise necessary to allow Nigerians to move quickly into upper level technical and managerial positions.

Suppliers should be aware of the increasingly strong emphasis being put, especially by the government, on the training component of any sales transaction. Proposals for furnishing both goods and services should treat this aspect fully. For example, when one branch of the government recently purchased vehicles, provision was made for extensive training of mechanics and drivers in the United States. On construction projects, bidders must provide for instructing local workers in skills. In all businesses, Nigerian employees are expected to learn and then practice management.

Another aspect of doing business in Nigeria is taking the time to explore and follow up repeatedly on trade opportunities. Negotiation is often protracted and the dimensions of a possible sale or project can be slow to be revealed. Ideally this situation suggests that an American or local representative of a U.S. firm remain on the spot to pursue a bid to its completion. This in turn shows the need for the U.S. company to expend time and effort to find competent Nigerian agents with initiative and persistence.

Doing business in Nigeria has its special complications. The groundwork necessary to consummate a business deal may be in excess of that required elsewhere, misunderstandings and frustrations are frequent, long delays are common. Balancing these factors are a large and growing market and the promise of good return on investment. For the American business person willing to accommodate to Nigerian practices and to accept the complications of doing business there, the rewards can be worthwhile.

Panama's Underlying Demand Seen Boosting Import Level Once Economy Is Righted

Constraints arising from slower economic expansion, lack of private business sector response to government efforts to stimulate the economy, and a decline in Canal activity retarded Panama's import growth in 1975 and resulted in an absolute decline during the first six months of 1976. Domestic imports grew in value by less than 10 percent in 1975 and declined 17 percent during the first six months of 1976. Imports into the Colon Free Zone for the first six months of 1976 declined 3 percent from last year's level.

John W. Stahlman, Commercial Officer at the U.S. Embassy in Panama, expects imports to rebound once the economy resumes its traditional growth, however. He notes that, unlike many developing countries which imposed restraints on imports and foreign exchange to insulate their economies against the impact of oil price hikes since 1973, Panama has retained its liberal trade and monetary policies.

The import market in Panama passed the billion-dollar mark in 1974 and reached about $1.2 billion in 1975. This combined total of an estimated $700 million in domestic imports and about $500 million Colon Free Trade Zone imports ranks this small country (1.7 million population) ahead of its Central American and Caribbean neighbors in market size. U.S. suppliers continue to supply 40 percent of non-petroleum exports to this compact market.

Elements of demand

Additional factors cited by Stahlman as helping to generate strong demand for imports: an ambitious development program, relatively high per capita income, a heavy dependence on foreign goods due to limited local resources and manufacturing, and a U.S. citizen community estimated at 20,000 in Panama and in the Canal Zone. Imports are facilitated and stimulated by this country's utilization of the U.S. dollar as a medium of exchange, the presence of a large regional banking center, the Colon Free Zone, and an active tourist trade. Demand arises also from Panama's position as a hub for land, sea and air routes. Fueling and provisioning of steamships and to a lesser extent aircraft and fishing vessels have become lucrative activities. Substantial demand stems from procurement in Panama of goods and services by U.S. Canal Zone military and civilian establishments.

Economic outlook uncertain

An economic slowdown, accompanied by higher import prices—especially for petroleum—a sharp cutback in construction activity, and an exhausting of import substitution opportunities persisted through the first half of 1976. Real economic growth rates, that during the 1960s and early 1970s had averaged 8 percent annually, during 1974 dropped to 2.6 percent and in 1975 to 1.7 percent.

Since October 1973, government decrees and actions affecting real estate (both urban and rural), labor-management relations and agricultural marketing have eroded the private sector's confidence in its future role in the economy. This, combined with the economic recession and tighter bank credits, has made investors and businessmen reluctant to assume medium to long-term commitments.

At the same time, local procurement by the Panama Canal Company and Canal Zone agencies has leveled off. Higher costs and reduced ship transits via the Canal are forcing the Company to adopt austerity measures in an attempt to reduce a widening gap between operating revenues and expenditures.

The slowing tempo of economic growth during 1974-1975 threatens to turn into stagnation during 1976. The economic picture is further clouded by the plummeting world market price of sugar, which has resulted in a 50 percent drop in export earnings from a commodity that was expected to be Panama's leading money-maker (excluding reexports of petroleum) during 1976 and to considerably improve the balance of trade when three new mills come on line in early 1977.

The agricultural sector has been hard hit by a serious drought during the spring and summer of 1976, making it

FINAL LINK IN PAN AM HIGHWAY—*Tropical rain forest yields to construction workers carving new IADB-financed road through Panama's Darien Gap. (Inter-American Development Bank photo)*

unlikely that the only sector of the economy to demonstrate significant growth in 1975 can provide a repeat performance this year.

Persistent slowdown

Elsewhere, signs of economic arrest persisted through the first half of 1976. Construction activity remains severely depressed despite stepped-up government investment in highways, secondary roads and other development projects. The value of building permits issued during 1975 was about half the 1973 level of $97 million. Permits for private construction fell more sharply—from over $83 million in 1973 to about $28 million in 1975.

The situation is even grimmer in 1976—a majority of the low-cost government housing projects that maintained activity at a subsistence level during 1975 have been completed, and additional government housing expenditures have not been forthcoming. Accordingly, the volume of building permits issued in the Panama City-Colon metropolitan corridor declined 60 percent during the first six months of 1976 from the corresponding period of 1975. These data apply to the area around Panama City, which accounts for about 80 percent of the country's construction activity.

Manufacturing activity remains stationary in the face of rising costs and decreasing demand. General commercial activity sagged last year and continues in the doldrums during 1976. Tourism, which grew steadily through 1974, seems to have stabilized—hotel occupancy figures are down and several projects that were initiated to take advantage of the expected tourist influx are experiencing financial difficulties.

Prospects of a resumption of economic expansion at the high rates attained through 1973 depend heavily on the government's ability to secure additional financing for new projects included in the 1976-1981 Five-Year Plan and to restore private sector confidence. Panama has demonstrated a unique ability to secure funds for development projects and for refinancing commercial debt. The establishment of an effective planning ministry five years ago facilitated stepped-up loan approvals by international development assistance agencies. Now that the slack in lending to Panama has been taken up vis-a-vis other recipient countries, the rate of new loan approvals is expected to be slower.

Private bank financing will also taper off unless the Panamanian economy provides some evidence that it is emerging from its current lethargy. Meanwhile, current revenues appear to be heavily committed to servicing the existing public debt of $1.1 billion, and, with the help of additional borrowing, to maintaining programmed development activity.

In January the government acted against a number of businessmen for criticism of its policies and an alleged plot against it. Representatives of both government and the private sector held several meetings to reconcile differences and improve government-private sector communication. Advisory commissions were set up to facilitate an ongoing dialogue.

More recently, the government has been faced with student demonstrations protesting recent increases in the retail price of rice and milk, an increase necessitated by the agricultural sector's losses during the recent drought.

Shift to capital goods

With the softening of private demand for consumer and capital goods, and an acceleration of government project requirements, the composition of imports has shifted toward machinery, equipment and supplies for development projects. This shift is expected to continue through 1976.

The $473 million 1976 development budget released in January is the key to import requirements for government projects. It should be noted, however, that the budget is heavily dependent on loans ($122 million) and supplier credits ($150 million), not all of which are assured. The three new sugar mills already under construction have been earmarked $203 million. The new Tocumen International Airport, Vacamonte fishing port, Colon container port, final work on the Bayano Hydroelectric Project, and initiation of the La Estrella-Los Valles and Fortuna hydroelectric complexes and the Calzada Larga cement plant and smaller projects are to receive $157 million. Funding for health, education and low-cost housing projects is projected at $110 million.

By far the largest project in the offing is the Cerro Colorado copper mine, which would require an estimated $800 million for mine, smelter and related facilities. The successful completion in January of contract negotiations between the government and Texasgulf, Inc. on a joint venture brought exploitation one step closer, with the final feasibility study on the mine scheduled for completion in early 1978.

In order to realize contract and sales opportunities represented by these projects, U.S. firms will need to ensure that they are represented locally by energetic Panamanian agents. Due to a scarcity of project financing and a desire to maximize local contractor and supplier participation, government procurement tends to be subdivided into relatively small amounts. Short lead times for bidding often result from efforts to keep projects on schedule.

Free Zone success continues

The success of the Colon Free Zone as a reexport base for goods valued at nearly $500 million annually demonstrates this facility's utility as a center for regional sales or shipments. Free Zone firms have capabilities for servicing Latin American markets which few companies can hope to duplicate. Their bilingual sales and shipping personnel have long experience in dealing with the myriad trade controls and requirements of the 25 regional countries. U.S. exporters are urged to investigate the advantages of collaborating with a Free Zone firm or establishing their own operations there.

New sales opportunities are envisioned under two new regulations adopted last December to stimulate tourism, trade and transport. Law No. 67 exempted from both duty and a 6 percent surcharge a long list of luxury consumer goods, including perfumes, jewelry, woolens, silks, linens, optical and camera equipment, small radios, watches, clocks, carpets, and some interior decorating items. Small calculators and radios ($60-$80 range) were also exempted from duty. This law also cut to 5 percent the tariff on consumer electronic equipment. The second new regulation removed duties on fuels, lubricants and repair parts for commercial vehicles.

Uruguay's Old Trade Patterns Are Breaking Down, Letting New Suppliers Enter Market

The most salient characteristic of the Uruguayan economy during the last two decades has been stagnation of production accompanied by high inflation and a decline in real purchasing power. However, fundamental changes in the country's prospects are now being brought about by reform of the economic system, according to the U.S. Embassy in Montevideo.

The new approach was conceived in 1973 when the Uruguayan Government committed itself to a gradual freeing of the economy from the many state controls then in effect. A policy of industrialization through import substitution which had been carried beyond its efficient limits was considered responsible for many of the country's problems. The new official program is to discard this approach in favor of promoting export industries based on domestic raw materials. The large majority of these materials are agricultural, a sector in which Uruguay appears to have a comparative advantage.

Among the most important domestic reforms set in motion to date have been the abolishing of consumer subsidies and most price controls. An industrial promotion law has also become the basis for providing benefits to approved projects. A program of spinning off unprofitable government-owned enterprises has been initiated. At the same time there has been some trimming of staff and increased efficiency at the state-owned enterprises.

In an unconventional approach for a country with chronic balance of payments difficulties, the government has liberalized foreign trade hoping that the move will provide export industries with the means to develop. To date that liberalization has taken the form of more realistic foreign exchange rates, an attractive foreign investment law guaranteeing profit repatriation, reduction in tariff surcharges and the virtual abolishing of the requirement for consular invoices on imports. Of special significance was the ending in mid-1975 of the complicated import quota system which Uruguay had relied on to protect local industry. The old trade patterns, frozen by the quota system, are now breaking down, providing opportunities for new suppliers and goods to enter the market.

Continued reforms are expected

Basic reforms such as these are not implemented overnight and progress has been uneven. In spite of improvements, bureaucratic obstacles and requirements are still often difficult and time-consuming. The size of the government and its numerous regulatory functions complicate the decision-making process. Problems that remain to be resolved include further reduction of the continuing large government deficit and of excessive payrolls, reform of the country's social security system, and the return of many state-owned enterprises to private hands.

Nevertheless, there is a consensus among business representatives that more constructive economic reforms have been accomplished in the past two years than at any time during the previous decade. The program implemented to date by the recent Minister of Economy and Finance, A. Vegh Villegas, has won the support of the international financial community. The swearing in of a new President and a new Minister of Economy and Finance on Sept. 1 may cause a pause in the pace of reform, but is not expected to modify the gains that have already been made nor the basic thrust of economic policy. The new Minister, Valentin Arismendi, who moved up from the number two position in the Ministry, has reaffirmed the government's commitment to reform of the economy.

Overall performance is encouraging

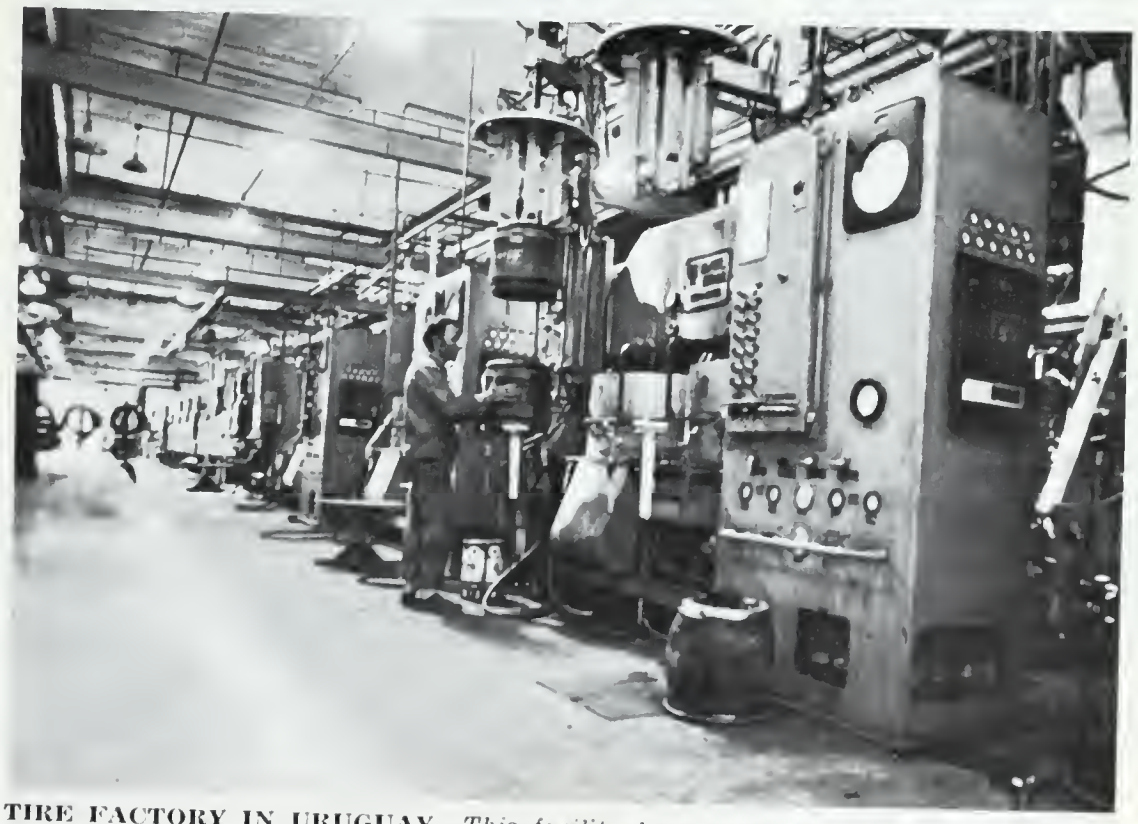
Economic performance during 1975 was relatively good considering that it had to be carried out under adverse world economic conditions. The domestic price index, which rose 107 percent in 1974, was held to an increase of 67 percent in 1975. The 11.2 percent rise reported by the Central Bank for the six months ending June 1976 was the smallest increase for any such period since 1971. Recent estimates are that the final 1976 inflation rate will be around 40 percent.

Central Bank figures indicate a probable GDP increase of nearly 4 percent for this year, similar to that achieved in 1975. While not spectacular, it is important when compared with the country's past record of low or even negative growth. It was also achieved at a time when growth rates around the world were at lower than recent historic levels.

The government has been slightly more successful this year in its attempts to reduce the budgetary deficit, which has declined from 27 to 18 percent. On the capital side, there has been an encouraging flow into the country, both from private and public sources, although some of the private flows may primarily reflect conditions in neighboring areas.

A number of major projects that will modernize the country's infrastructure are under way or planned for the near future. These include large hydroelectric dams, expansion of Montevideo's sewage system, modernization of microwave and telephone communications, port improvement, fisheries and waterworks. Two bridges spanning the river to Argentina have recently been opened. The U.S. Agency for International Development, the World Bank and the Inter-American Development Bank will be continuing or initiating programs fostering expanded agricultural and agro-industrial production.

Uruguay's near-term economic future will be strongly conditioned by movement in world markets for meat and wool, both of which are expected to improve. The European drought in particular is expected to lead to an increase in demand for beef beginning in mid-1977. Brazil should continue to be a large buyer of beef, providing an element of stability in



TIRE FACTORY IN URUGUAY—*This facility has expanded and improved its production with the help of credit provided by Inter-American Development Bank.*

the composition of Uruguayan exports.

Progress in 1976 is turning out to be notably improved over 1974 or 1975. Even though major problems remain, Uruguay seems to have weathered the crisis brought about by the petroleum price increase. As for prospects in this field, hopes that the country would discover oil have so far been disappointing. Chevron, which has a contract for offshore drilling of four exploratory wells, announced completion of a second dry hole and suspension of activity while test results are studied. Nevertheless, the government's policy of encouraging private investment and foreign trade, together with completion of the major infrastructure projects, bode well for reinvigorating the economy and promise increasingly bright prospects for Uruguay's future.

Trade with U.S. grows

Although small in real terms, Uruguay's trade with the United States is growing at a rapid rate. Between 1973 and 1975 imports from the United States doubled to over $50 million. The country is host to a modest amount of U.S. investment. If Uruguay continues to opt for reform, U.S. capital equipment, raw material and spare parts suppliers will have increased sales opportunities.

Uruguay's purchases for major infrastructure projects should also increase. As for openings for U.S. investment, the position of Uruguay between Argentina and Brazil adds opportunities under LAFTA complementation agreements and bilateral trade pacts with those countries. In the private sector, there will be a growing market for fishing trawlers and processing equipment, refrigeration, shoe manufacturing and other leather processing equipment, as well as for food processing and packaging equipment. Uruguayan meat packers, determined to diversify production, are actively investigating the purchase of U.S.-produced cooked and corned beef canning lines. Capital goods imports are up 70 percent over 1975.

Companies seeking to enter the Uruguayan market for the first time will, in the majority of cases, find appointing a local sales agent to be the most effective first step.

In the long run, U.S. manufacturers can expect to face increased competition from Argentina and Brazil. In addition to advantage of geographic proximity, lower import duties and close cultural ties, those countries are offering very favorable export financing for their products. U.S. firms with Brazilian or Argentine subsidiaries are benefiting accordingly. However, as import liberalization continues, opportunities for a wider range of U.S. exports will also be correspondingly enhanced.

Bermuda Market Is Small, But Broad, Affluent, Sophisticated

The Bermudian business community must wonder whether to mark the past year "bad" by comparison with other recent years or "good" by comparison with what other countries went through. In 1975, tourist spending, the mainstay of the local economy, increased although visitor totals declined. Retail sales and merchandise imports fell (cargo tonnage crossing local docks dropped 20 percent), while unemployment was recorded virtually for the first time since the 1930s, though still restricted to rates most other nations would envy.

There are now encouraging signs of a recovery in economic confidence, according to the American Consulate General in Hamilton. Preliminary customs statistics indicate that in 1976 imports are expanding in virtually every category except major capital items, providing solid evidence that local merchants are now rebuilding stocks.

Tourism accounts for 67 percent of the colony's GNP. Visitor totals fell slightly in 1975 from 1974's record pace, but revival of this key industry is now readily apparent. The government Department of Tourism called for an 11.4 percent increase in visitors this year, based not on the gain actually expected but rather on the increase needed to return Bermuda's tourist industry to its normal 6 percent annual growth plan. Even this ambitious target is now regarded as within reach; visitor totals through July were up 10.2 percent over 1975, while advance bookings indicate that the outlook for the balance of the year continues highly favorable.

Future of tourism

A well-placed local tourism official cautions that, in the future, yearly visitor gains will probably slow to 3 to 5 percent, due to saturation of available industry capacity. Similarly, it will be difficult to raise the average occupancy rates of Bermuda's hotels much above 75 percent. All hotels must be virtually fully booked during the March to October peak season to achieve such an average occupancy rate for the year. Looming difficulties in future tourism performance due to capacity shortages could well cause an early review of the present government moratorium on further hotel construction.

International business makes a contribution to Bermuda's economy second only to tourism. The number of "exempted" companies (incorporated in Bermuda but doing business elsewhere) continues to grow at a healthy pace; some 3,400 exempted companies, exempted partnerships and "non-resident corporate bodies" (firms incorporated elsewhere, usually in another tax haven, but operating in Bermuda similarly to local exempted companies) are currently active. A majority are U.S.-owned.

A 1975 U.S. tax law change relating to foreign subsidiaries of U.S. multinational companies has thus far had little measurable effect on Bermuda's international company "industry." However, as much of Bermuda's international business is attracted by the colony's tax-free status and relaxed regulatory climate, the future growth of this segment of the local economy is highly dependent upon the forbearance of home-country legislators.

Construction activity, once counted upon to take up a portion of the slack created by 1975's tourism downturn, has remained stagnant. A heavy schedule of major construction projects expected during 1975 and 1976 has largely failed to materialize, slashing building totals 5 percent below predicted levels in 1975 and 15 percent this year.

Prospects for revival of the long-depressed local building industry are improving, however. According to a key local planning official, building permit applications in 1976 are running at "normal" (pre-1975) levels and "several" major (by Bermuda standards) construction projects have recently received zoning permission.

The Government Housing Corporation plans to finance $10 million in residential construction over the remainder of this decade and a local mortgage banking firm recently announced plans to finance a further $5 million worth of new housing. The Bermuda Government plans to begin three major building projects, with a combined cost of some $20 million, in the foreseeable future. Commencement of these projects has been delayed thus far by environmental protests and by the necessity for obtaining appropriate financing, as their total cost equals nearly a third of the annual government budget.

Return to reasonable growth

These projects, together with a possible easing of the hotel construction moratorium toward the end of this decade, will probably insure that building activity will be restored to, and maintained at, a high level in coming years. However, a return to the boom conditions of the early 1970s is neither foreseen nor desired.

A particularly encouraging aspect of the local economic picture over the past year has been Bermuda's highly successful fight against inflation. The government Retail Price Index, heavily weighted (40 percent) by food items, increased by less than 1 percent between December 1974 and December 1975. This happy result was aided by fortunate timing:

prices of some food items fell during 1975, while devaluation of the currencies of important trading partners (sterling, the New Zealand dollar) eased the prices of many imported goods. The local inflation rate has continued its moderate climb in recent months, rising only 1.4 percent between December 1975 and June of this year. Government economists, who would once have gladly settled for a local inflation rate 150 percent of U.S. levels, now predict Bermuda's prices will rise about 3 percent during 1976.

In one reflection of the local recession, Bermuda's imports fell $8.3 million, or 5 percent in 1975. While U.S. exports to Bermuda also declined slightly (to $67.6 million), the American share of the Bermuda market rose to 47.8 percent, the highest level in years. Bermuda's other major trading partners, Britain and Canada, also boosted their market shares last year; the joint market share of the colony's three major suppliers climbed to 73 percent from 67.9 percent in 1974.

Wide range of demand

An outstanding characteristic of the Bermuda market is the breadth of local demand for American products. Bermuda offers full and complete facilities for the marketing of virtually every type of product and with adequate effort any firm with something new to offer can find a market there. Advertising and television campaigns appear to be the most useful means for expanding consumer product sales in Bermuda. Bermudians enjoy per capita incomes at American levels, while local merchants are among the most sophisticated in the hemisphere, with thorough knowledge of the business of international trade.

There exists in Bermuda a unique mixture of demand for best value for money together with a high degree of brand loyalty. Many commercial relationships, once established, will continue for generations. However, it should be kept in mind that foreigners must cultivate their Bermuda customers carefully to keep them.

In sum, Bermuda by virtue of its size can never be a volume export market but does offer American business a broad, affluent and sophisticated market forced by geography and lack of industrial resources to import virtually everything consumed.

There has been no attempt to measure total U.S. investment but it is unquestionably substantial. Bermuda's Companies Act of 1923 requires that Bermudians have an ownership share of at least 60 percent in any firm doing business in the islands. Exceptions to this requirement are occasionally granted for enterprises requiring substantial capital investment, such as major hotels. Restrictions on foreign investment in local businesses have channeled much of it into tourism infrastructure and residential property.

Americans own outright or have substantial participation in seven local hotels, including five of the largest in Bermuda. The Bermuda Monetary Authority estimates that 75 percent of the annual investment inflow (totaling $55.2 million since 1972) comes from the United States. Bermuda's business and political leaders continue to welcome foreign investment compatible with traditional local practice.

Bolivia Maintains Steady Pace, Places Focus On Development

Bolivia's economy grew by 6.8 percent in real terms in 1975, despite a downturn in world prices for the country's mineral exports. This level of activity has been maintained this year and prospects are excellent for continued expansion at about the same rate through 1977, as a result of improved world minerals prices and a high level of foreign financing for development projects, reports the U.S. Embassy in La Paz.

Over US$400 million in development loans to the public sector were signed in 1975 with international lending agencies, private foreign banks and third-country bilateral donors. An even higher level of external financing is occurring in 1976, with some $550 to $600 million in public sector loans expected to be signed.

Conservative monetary and fiscal policies brought inflation down to 10-12 percent in 1975, and to less than a 6 percent annual rate during the first six months of 1976. Due to the upturn in world minerals prices and strong capital inflows, the balance of payments is expected to be in surplus in 1976 and net foreign exchange reserves rose to $178 million in August, one of the highest levels in Bolivian history.

Climate of confidence

The strength of the peso, sound economic management, and prospects for continued political stability are fostering a climate of confidence, boosting domestic savings and private sector investment.

With the Bolivian Government's ambitious plans for large-scale industrial, infrastructural and social development projects under the new Five-Year Plan and Bolivia's increasing access to foreign financing, imports of capital goods and raw materials as well as foreign technical and managerial know-how should increase substantially during the 1976-1980 period. Important investment opportuni-

BOLIVIAN SERVICES MACHINERY—*Continued economic expansion is helping to generate a climate of confidence in Bolivia's business community. Factories such as this small facility which produces plastic tubes are expanding output to meet growing domestic and regional demand. (Inter-American Development Bank photo)*

ties will also exist, especially as joint ventures. Average growth during the Plan is projected at 7.7 percent annually, to raise GDP to $3 billion by 1980 (in 1975 dollars).

Bolivia should therefore continue to grow as a market for U.S. exporters and investors. U.S. exports to Bolivia increased by 144 percent in 1974, to $105 million; and by another 30 percent in 1975, reaching $138 million. For the first half of 1976, U.S. exports to Bolivia were down slightly to $59 million.

A summary of the Five-Year Plan has been published by the Bolivian Government and contains an excellent analysis of Bolivia's economy over the past five years, macro-economic projections for 1976-1980 and a sector-by-sector breakdown which lists over 300 major investment projects. Copies of the Plan summary can be obtained for $10 from Ministerio de Planeamiento y Coordinacion, Avenida Arce, No. 2147, La Paz.

During the Plan period, principal export opportunities will be in supporting equipment and supply needs in key sectors such as light and basic industry and manufacturing, mining and minerals processing, petroleum extraction and refining, petrochemicals, gas pipelines, road and airport construction and aircraft maintenance, railroad improvement and expansion of railway rolling stock, agricultural machinery and food processing equipment. In the social sector, investments are being made in hospital construction and medical equipment, housing, building construction, schools and educational materials.

Public sector entities purchase approximately 70 percent of all imported goods and services. While U.S. companies enjoy clear technological advantages for many products and services, public sector purchasing officials are very price conscious. In addition, by law all government entities normally must issue public tenders for purchasing only to firms domiciled in Bolivia or Bolivian representatives.

Spain Changes Duty Rates

Spain has recently increased import duty rates on a wide range of products by 6 or 12 percent, and made most duty-free items subject to a 1 percent rate. In the case of a few items, mainly clothing and furniture, duty rates were reduced by 6 percent. These duty changes are to be in effect until Feb. 28, 1977.

Information on specific products may be obtained from Regional Affairs for Developed Markets, Office of International Marketing, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2346. Inquiries should contain a complete product description, including BTN, SITC, or U.S. Schedule B Export Commodity numbers, if known.

Foreign Donors Help Zambia Confront Economic Problems

Zambia is confronted with an array of political and economic problems which are causing economic hardships and disrupting the nation's development efforts, reports the U.S. Embassy in Lusaka.

Severe deterioration of the balance of payments and budget have forced cutbacks in government programs and investment plans. Zambia's vulnerability as a land-locked country dependent on a single commodity, copper, for its foreign exchange earnings has been convincingly demonstrated since mid-1974 when copper prices began a prolonged and steep drop. This was accompanied by deterioration in the transport situation, which simultaneously forced a reduction in copper shipments and resulted in shortages of raw materials and machinery needed to sustain domestic output.

The assumption of the past that the copper industry would provide means to accumulate investment funds to develop other resources is no longer valid. While there is some optimism that copper prices will respond to improved economic activity in the industrialized countries, the economic measures that Zambia has been forced to adopt in response to the economic crisis will have a dampening effect on economic activity for some time to come. The 20 percent devaluation announced July 8 will improve the liquidity position of the mining companies but will add fuel to inflationary pressures.

There has been little new American private investment in Zambia, both because of the depressed economic conditions and investors' perception of long-term prospects for the private sector. Several American multinationals are negotiating with the government for industrial joint ventures.

Potential investors are also examining the implications of the requirement for greater worker participation under the program of Industrial Participatory Democracy announced by the President. An Act of Parliament provides that workers should be party to the decisions made on investment policy, job evaluation, appointment of senior management executives, financial control and distribution of profits.

Because most of Zambia's imports from the United States are essential capital goods for the mining industry and transport sector, these exports have been affected relatively less by import stringency. The U.S. share of the market rose from under 10 percent to about 13 percent in 1975.

According to Zambian statistics the f.o.b. value of imports from the United States reached $121 million in 1975. However, U.S. suppliers will continue to encounter delays of up to six months in receiving payments due to foreign exchange problems. Interest on the part of Zambian businesses in entering new agency/distributor agreements will be low until import restrictions are lifted and the future of the private sector is clarified.

Because of general agreement that most of Zambia's problems are due to factors outside its control, a number of international agencies and developed countries, including the United States, have agreed to provide substantial capital and development assistance.

The United States has agreed to assist with balance of payments support in the form of a commodity import loan in the range of $25 million. A U.S. AID Housing Investment Guarantee Program of $10 million is in the final stage of negotiation and Zambia may receive some food under PL-480. The World Bank during 1975 signed new loan commitments worth $95.1 million, bringing the cumulative commitment to $455 million. An additional loan from the Bank for commodity imports of about $25 million is under consideration. A loan agreement of $81 million was signed between Zambia and the EEC, and the IMF is expected to provide an additional $70 million through various financing facilities.

Trade Specialists Offering Counsel At NFTC Meeting

Department of Commerce trade specialists from New York, Washington and foreign posts will be available for individual counseling with business executives during the National Foreign Trade Council convention next week in New York.

The counselors will be in a special suite at the convention's Waldorf-Astoria headquarters over the Nov. 15-16 period. They are:

Edward C. Bittner, former Economic Commercial Attache, Venezuela; Roy O. Carlson, former Commercial Officer, Germany; Russell O. Prickett, former Economic/Commercial Officer, Japan; Ann Brosnan, Director, Regional Affairs, Latin American, African, Asian Markets; Sally Miller, Country Marketing Manager, Africa; Roger F. Stechschulte, Director, Trade Development Assistance Division, Bureau of East-West Trade; Peter Edmons, Country Specialist, Saudi Arabia, Commerce Action Group for the Near East, and Brant W. Free, Deputy Director, Office of International Finance and Investment.

Persons wishing to use this service are asked to contact the Commerce District Office, Suite 3718, 26 Federal Plaza, New York, N.Y. 10007, by calling Robert Hyams at 212-264-0624. They are asked to state their company affiliation and product interests.

Calendar For World Traders

Nov. 9—New York—Roundtable on scrap metal markets in Europe, World Trade Center. Contact: John R. McBride, Natl. Assn. of Recycling Industries, 330 Madison Ave., N.Y. 10017 (212-867-7330).

Nov. 10-16—Los Angeles—Four special World Trade Institute meetings at the World Trade Center: Financial and Tax Aspects of International Shipping; Introduction to International Taxation; Fundamentals of Foreign Exchange; Foreign Investment in U.S. Real Estate. For information: 212-466-7777.

Nov. 11—Peoria, Ill.—Export Awareness Forum. Sponsors: Peoria Area Chamber of Commerce, Illinois District Export Council, Commerce District Office. For information: 312-353-4450.

Nov. 15—Chicago—Seminar on Andean Pact and Transfer of Technology, Legal and Tax Problems. Sponsors: International Trade Club of Chicago, Council of the Americas.

Nov. 15-18—Washington, D.C.—International Symposium on Small Business, Hyatt Regency. Theme: Achieving World Economic Growth and Prosperity Through International Small Business Development. For information: 202-653-6742.

Nov. 17—Chicago—Seminar on Business Opportunities in Morocco, Palmer House. Sponsors: Mid America-Arab Chamber of Commerce, Chicago Assn. of Commerce & Industry, Commerce District Office. Arthur J. Laemmerzahl of the Commerce Action Group for the Near East will speak. For information: 312-782-4654.

Nov. 18—Chicago—International Trade Club luncheon meeting, Hyatt Regency. For information: Agnes Stenros, 312-341-9021.

Nov. 18—St. Louis — Conference on China's Agriculture and Prospects for U.S. Sales, Breckenridge Pavilion Hotel. Sponsor: National Council for U.S.-China Trade.

Nov. 18—Boston—International Business Center of New England's Trade Winds Roundtable and dinner meeting, Holiday Inn Newton. For information: 617-542-0426.

Nov. 18-19—Denver—Orientation seminars on Doing Business in Latin America (focus on Brazil and Colombia) and Middle East (focus on Iran and Egypt), Brown Palace Hotel. Sponsors: Center for the Orientation of Americans Going Abroad, and Colorado State Univ. College of Business. For information: 303-491-7571.

Nov. 19—Toledo — International Trade Assn. conference on international trade, Commodore Perry Motor Inn. For information: 419-243-8191.

Nov. 29-30—New York—Seminar on Doing Business with Kuwait, Bahrain, United Arab Emirates, Oman and Qatar, American Management Associations. Speakers include Peter B. Hale, Director, Commerce Action Group for the Near East.

Nov. 30—Boston—International Business Center of New England seminar on Foreign Exchange and International Money Management, Hyatt Regency Cambridge. For information: 617-542-0426.

Nov. 30-Dec. 1—Ann Arbor—Seminar on Your International Managers: Their Selection, Preparation and Compensation. For information: University of Michigan Graduate School of Business Administration, 313-763-1387.

Dec. 6—Cambridge, Mass.—Seminar on Energy and Petroleum in the Soviet Union, Harvard University. Sponsors: Department of Commerce's Bureau of East-West Trade, Russian Research Center at Harvard. Participants will discuss present and potential Soviet impact on world energy markets and trends in USSR domestic energy and supply. For information: Marshall Goldman, 617-495-4037.

INTERNATIONAL BUSINESS REPORTS

The Statesmen's Year-Book 1976-77. Edited by John Paxton. London. 1556pp. £7.95.

The 113th edition of this one-volume encyclopedia of the world's nations contains more than a million words and is a reference tool for everyone requiring up-to-date information and statistics. Several new features are included in this edition.

Write: MacMillan Press Ltd., Little Essex St., London WC2R 3LF.

Investment Financing Handbook. Overseas Private Investment Corporation. 16pp. Free.

The Overseas Private Investment Corporation is an agency of the United States Government which is intended to "mobilize and facilitate the participation of U.S. private capital and skills in the economic and social development of less developed friendly countries and areas, thereby complementing the development assistance objectives of the United States." This revised booklet briefly describes the services OPIC offers to American business in carrying out that charter.

Write: Overseas Private Investment Corporation, 1129 20th St., NW., Washington, D.C. 20527.

International Regulation of Multinational Corporations. By Don Wallace, Jr. 233pp. $17.50.

"This book is not concerned mainly with the rise or the phenomenon of the multinational corporation; nor is it, generally, concerned with what U.S. policies should be toward inward or outward foreign direct investment or multinational corporations, whether or not they are based in the United States. It is concerned with a specific set of proposals for dealing with multinational corporations; this set of proposals calls for the creation of an international organization that would regulate multinational corporations and foreign direct investment."

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

Exporters Get Metric Guide

A publication intended to provide basic information to American exporters on foreign laws and regulations pertaining to metric requirements for imported products has been issued by Commerce's Bureau of International Economic Policy and Research. American exporters are becoming increasingly aware of the growing practice of countries with which we have major trade relations to require imported products to be packaged, labeled and documented in metric units. In this country, the Metric Conversion Act of 1975 (Public Law 94-168) was signed on Dec. 23, 1975.

Metric Laws and Practices in International Trade: A Handbook for U.S. Exporters, includes statements on metric laws and regulations, as well as citations, for 36 countries which are major trading partners of the United States, as well as for the European Economic Community. The country reports also contain details on specific metric packaging and labeling requirements for imported products, and highlight points of particular pertinence to U.S. exporters.

This 74-page handbook is available for $1.45 from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

Building Products and Construction Equipment Catalog Exhibit. Philippines, Thailand and Malaysia. January. All three countries are initiating aggressive building programs and expect to import most or all of the building products and construction equipment required. Pre-engineered and modular construction are either established techniques or are gaining wide acceptance in all three markets. Reinforced concrete, wood-frame, hollow building block, and structural steel are the common building techniques. Aluminum and wood are used for window and door frames. Call 202-377-3973.

Water Resources Specialized Trade Mission. Iraq, Saudi Arabia, United Arab Emirates. January. Iraq may be spending $5-$9 billion on water resource development, including six major dams and numerous municipal water system projects. In Saudi Arabia, a governmental review of six water resource surveys has generated new ideas to meet water requirements. According to the American Embassy in Jidda, the timing of this mission is ideal. Projects under consideration will run into the billions of dollars. Upcoming projects in the UAE include desalination stations, reservoirs, pumping stations, and new sewer plants. The U.S. Bureau of Reclamation soon will undertake a hydrological survey of the UAE, with future projects expected to result. Bob Vigneault, 202-377-4918.

Building and Construction Specialized Trade Mission. Iran and Israel. January. Growth in Iran's building and construction sector has averaged nearly 40 percent annually over the past three years. According to that country's current five-year-plan, some $6 billion is targeted to housing construction. Other major projects include port development, power plants, hospitals, refineries and factories. Major construction projects in Israel include entire new towns, an industrial complex, shipping and recreation centers, and various plants and factories. Call Bert Renborg, 202-377-3741.

Pet Products Exhibit (JEEP). Paris. Jan. 10-13. By 1985, France is expected to be the largest market in all of Europe for pet foods and accessories. Its 51 million residents currently care for some 7.5 million dogs, 7.5 million cats and the contents of 2 million bird cages and 1 million aquariums. One family in two has at least one pet. Because of the market's growth rate, good opportunities exist for American firms to introduce new products. Some 6-8 new-to-market firms will be eligible for this event. Ned Krause, 202-377-5381.

Data Communications Equipment Exhibition. U.S. Trade Center, London. Jan. 10-14. The U.K. data communications market, presently estimated at $150 million, is expected to reach $175 million by 1980. Imports account for over 90 percent of domestic consumption of this equipment, with the U.S. share above half. Items to be emphasized are computer peripheral controllers and interface devices, combination I/O devices and processors, input equipment, output devices, and parts and accessories of data communications systems. Anita F. Brownstein, 202-377-4443.

Electronics Production and Test Equipment and Electronic Components Catalog Exhibit. New Delhi and Bombay. Jan. 10-20. India is currently making a determined effort to accelerate the overall development of its electronics production capability. The U.S. currently holds 75-80 percent of the total Indian import market for production and test equipment, and in 1974 the U.S. accounted for 46.5 percent of Indian imports of electronic components. Both markets should be expanding greatly. Call 202-377-3973.

Timber Industries Equipment Catalog Exhibit. Madagascar, Zaire and Central African Republic. Jan. 13-25. These countries manufacture little of the equipment necessary for these industries. Although there is immediate sales potential only in the C.A.R., Madagascar has taken a World Bank loan for a major pulp mill project within the next five years, and Zaire is in need of retooling and expanding its timber industries in the near future. C.A.R. and Madagascar have eliminated tariffs against the U.S., and this, combined with devaluation of the U.S. dollar, has made U.S. timber industries equipment much more price competitive. Call 202-377-3973.

Port Development Technical Sales Seminar. Algeria, Tunisia, Qatar. Jan. 15-24. Oil and gas-rich Algeria is giving high priority to continued expansion of its ports to facilitate massive import needs and better control its export of hydrocarbon products. Extensive interest exists in containerization. Tunisia's main port of Tunis-La Goulette needs improved cargo handling and transportation facilities, and increased use of roll-on/roll-off vessels will necessitate changes in equipment and infrastructure at all of its ports. Prospects in Qatar are best for supplies of port and harbor equipment and port management services, as it considers recommendations for expansion of present ports and possible construction of a new port. Call E. Lee Carteron, 202-377-2973.

Microwave Technology and Test Instruments—Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. Jan. 19-21. With the French Government's recently announced plan to expend $30 billion during the next 5 years to modernize the national telephone system and with the recognized technical superiority of U.S.-made microwave products and test equipment, France promises to be a prime export market for U.S. manufacturers. Featured will be components, circuits, test and measurement instruments, equipment and systems, and antennae. Contact George Ruffner, 202-377-5381.

Motor Vehicle Maintenance Equipment, Replacement Parts and Supplies Exhibition. U.S. Trade Center, Mexico City. Jan. 25-28. The Mexican motor vehicle census has increased from 800,000 passenger cars, trucks and buses in 1960 to 3.2 million in 1974. Mexican purchase of motor vehicle replacement parts, service equipment and automotive chemicals was $194 million in 1974 and is expected to more than double by 1980. Mary R. Wiening, 202-377-4463.

Business Equipment and Systems Exhibition. U.S. Trade Centers, Paris, Jan. 31-Feb. 3; London, Feb. 8-11. These events will provide exceptional sales opportunities for American manufacturers. Past experience has shown that they attract executives influential in the purchase of equipment. The U.S. Trade Centers in Paris and London provide an effective and economical means of reaching buyers or setting up distribution. Exhibitor's contribution fee is $900 for companies new-to-market and $2,000 for those already established. Dwight L. Umstead, 202-377-4414 or 2177.

Avionics and Ground Support Equipment Technical Sales Seminar. Greece, Italy and Yugoslavia. Feb. 1-10. Seminar sessions will be conducted in Athens, Rome and Belgrade. "State of the art" presentations emphasizing the latest technological achievements in specific areas of avionics and ground support equipment will be given. Product categories to be included encompass communications such as traffic controls and flight instrumentation such as navigational aids commonly found in aircraft. Also, terminal support equipment and products used to test and service aircraft and aircraft engines as well as baggage and cargo handling systems. Airport and aircraft requirements are expanding rapidly as efforts are made

to modernize and improve air transportation systems in these countries. W. Bradley Tyrrell, 202-377-5285.

Medical Equipment Technical Sales Seminar. Czechoslovakia, Hungary, Poland. Feb. 1-15. Officials of these three countries have expressed deep interest in purchasing American medical equipment to improve their health care systems. This seminar will provide a proven, effective method to develop markets in Eastern Europe. Gary Roberson, 202-377-3376.

Hi-Fi Equipment Exhibition. U.S. Trade Center, Milan. Feb. 4-7. A special opportunity to show and sell the latest in hi-fi equipment is being offered to a limited number of American manufacturers. The U.S. Trade Center staff in Milan will launch an exceptional promotional campaign aimed at the widest possible trade and consumer audience exposure. AM-FM stereo equipment, amplifiers, speakers, synthesizers, electric guitars, tuners, microphones, headphones and complete amplifier systems are some of the items that will make up the exhibition. Call Mike Springmann, 202-377-2762.

Poultry Equipment Mini-Exhibit/Seminar. U.S. Commercial Office, Moscow. Feb. 7-10. The USSR's 1976-80 Five-Year Plan calls for a 100 percent increase in poultry production to be achieved by more mechanization and introduction of progressive techniques. New mechanized poultry farms and factories are planned and existing poultry farms are to be rebuilt using new machinery and technology that must be imported. Call Richard Bell, 202-377-5163.

Maritime USA '77—Port and Shipbuilding Exhibition. Kaohsiung. Feb. 7-11. The market for maritime, port and shipbuilding equipment in the Republic of China is growing at a rapid pace. Imports are estimated to reach $317 million by 1979. U.S. manufacturers are expected to supply one-third of this market, which consists of both government and private enterprises. Dave Horridge, 202-377-2798 or 5545.

Electric Energy Systems Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Feb. 7-11. U.S. firms supplying this equipment have excellent markets in Singapore, Malaysia and Indonesia in both private and public sectors. Imports by Singapore alone totaled $172 million last year with strong growth expected. This exhibition, featuring generation, transmission and distribution, and instrumentation equipment, provides direct access to all three markets. Space is limited. Call Helen Burroughs, 202-377-2051.

International Houseware Fair. Cologne. Feb. 12-14. Products to be exhibited at the American Pavilion include: domestic machines and appliances, kitchen utensils, household and cleaning aids, incidental furniture and wicker articles, cutlery and flatware, fine metalwares and tableware articles, gift items, and arts and crafts. Germany's 62 million people live in 23.7 million households and spent $3.6 billion in 1975 on housewares. The market is expected to increase 3.5-5 percent annually during the next 3 years. Scheduled to coordinate with the International Hardware Fair, which in 1977 is expected to attract more than the 20,000 trade visitors from 64 countries recorded in 1976. Don Schmadel, 202-377-2177.

Electronic Data Processing Technical Sales Seminar. Bahrain, Iraq, Kuwait, Saudi Arabia. Feb. 13-28. Market information indicates an expanding market for American-made EDP products—particularly for firms whose products are compatible with IBM or NCR equipment. High interest in this event already has been expressed by government officials in the data processing field in these countries. Contact Brad Tyrrell, 202-377-4304.

Printing and Graphic Arts Exhibition, U.S. Trade Center, Tokyo. Feb. 14-18. Carefully researched projections of the Japanese market for printing and graphic arts equipment indicate a growth from $290 million to $335 million over the next three years. In 1979 total imports will approximate $83 million with the U.S. share exceeding $25 million. Imported equipment will include typemaking and typesetting machinery, presses, bookbinding machinery, and photographic equipment for the graphics industry. Purchasers will be interested in both new investment and replacement equipment. During the recession period of 1974-1975 imports of printing and graphic arts equipment registered a 20 percent decline; however U.S. exports in this product category for the same period increased nearly 20 percent, demonstrating growing demand. Cantwell Walsh, 202-377-4056.

Printing & Graphic Arts Equipment Product Literature Display. Johannesburg and Cape Town. Feb. 14-25. Trade sources indicate that for 1976-1980 a general growth rate of between 10 and 12 percent can be expected for printing and graphic arts equipment in South Africa. South Africa must import all of its printing and graphic arts equipment except for less sophisticated equipment such as sink units and washing equipment. Despite their appreciation for the quality and sophistication of American-made equipment in this field, a major share of the market goes to other suppliers. The primary reason is the lack of exposure of U.S. equipment in South Africa against the extensive promotion efforts conducted by U.S. competitors. This product literature display is important to offset these trends. Call 202-377-3973.

Agricultural Machinery & Equipment Exhibition. Guadalajara. Feb. 16-20. Mexican agricultural machinery and equipment imports are expected to exceed $110 million this year and are projected to increase by 25 percent annually for the next three to four years. Guadalajara is the second largest city in Mexico and one of its major agricultural centers. Call C. M. Cummings, 202-377-4463.

Agricultural Machinery Catalog Exhibit. Morocco, Tunisia, Libyan Arab Republic. Feb. 23-March 3. Agriculture is the main economic activity in Morocco and Tunisia, employing 70 and 60 percent of the population, respectively. Libya has placed highest priority on the reduction and eventual elimination of food imports, for which it is now almost totally dependent. The primary interest of all three countries is in irrigation and land reclamation. All three have earmarked large sections of their development budgets for agricultural development. None of these countries produces much agricultural machinery, and this, combined with their emphasis on agricultural development, should make them attractive markets for agricultural machinery. Call 202-377-3973.

Communications Equipment. U.S. Trade Center, Tehran. Feb. 27-March 3. The government is in the process of establishing a modern national communications system, and plans to expand communications facilities by 1000 percent during the next ten years. Iranian imports of communications equipment amounted to $185 million in 1972 and are projected to increase to $400 million by 1980. The majority of this equipment will be imported, since Iranian manufacturing capability in the field is limited. Karl Reiner, 202-377-2952.

Motor Vehicle Maintenance Equipment, Replacement Parts, and Supplies Catalog Exhibit. Nigeria, Zaire and Zambia. March 9-22. As a result of Nigeria's oil revenues the government has devised a five-year $50 billion development plan to cover all sectors of the economy and raise the national standard of living. A substantial part of the plan will be devoted to maintaining and expanding infrastructure ($7 billion for highway construction alone). Nigeria is still wholly dependent on imports to satisfy motor vehicle maintenance equipment needs. Couple the Nigerian demand for imports with the surge in motor vehicle assembly plants and there will be strong demand for maintenance equipment and parts for the foreseeable future. Zambia is a landlocked country and thus has to rely heavily on land transport systems to move copper to foreign ports. Zaire has been actively seeking direct foreign investment to enable it to grow. Foreign aid has been directed towards the agricultural and transportation sectors. 202-377-3973.

Industrial Instrumentation. Leipzig Spring Fair, German Democratic Republic. March 13-20. The second U.S.-sponsored exhibition at Leipzig will feature industrial instrumentation primarily applicable to the machine tool and processing machinery construction industry, the chemical industry, and the electrical engineering industry. Emphasis on these sectors is based on a realignment of economic policy goals calling for reinforcement of the raw materials base, an increase in and improvement of consumer goods to the public, and a production increase in the export sector. Buyers and trade officials from throughout Eastern Europe and the Soviet Union see this as their opportunity to inspect western goods and make purchasing decisions. Richard Bell, 202-377-5163.

"PRINTEMPS INFORMATIQUE" (Computers and related equipment) Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. March 11-17. Computer firms seeking to establish in the French market have an excellent opportunity to participate in this major annual computer exhibition, offered in conjunction with a "Computer-Aided Business" trade mission to the Benelux countries March 1-11. Peter B. Field, 202-377-4504.

Building Products and Systems, Construction Equipment and Architectural Hardware Exhibition. U.S. Trade Center, Tokyo. March 11-18. In 1974 the Japanese market for these products was $34 billion. The forecast for 1980 is $54 billion. New construction there is strongly influenced by western style and ideas. Private and public construction in 1974 was 2 million units valued at $67.9 billion. The 1980 projection calls for 3.1 million units at $110.1 billion. The Japanese seek advanced design interior and exterior building products of quality, and knowledge of building systems and methods that U.S. manufacturers can supply. Robert Levine, 202-377-4056.

Commercial and Industrial Security

Equipment Exhibition. London Trade Center, March 14-18, and Milan Trade Center, March 22-26. Strong and growing demand for this equipment has been identified by recent market research. The combined market for Italy and the United Kingdom amounts to about $350 million, of which about one third represents imported equipment. Products having high sales potential include intrusion alarm devices, security cameras, closed circuit television systems, access control equipment, fire detection alarms, automotive checking systems, anti-shop lifting devices, "bomb sniffers" and many others. Contact Sam Spaulding, 202-377-4508.

Tokyo Anti-Pollution Exhibition, TAPEX '77 Trade Fair, Harumi Pier, Tokyo. March 14-18. Japan's remarkable economic and industrial growth has spawned the worst aspects of high-paced industrial development with all forms of accompanying pollution: air, water, solid waste and noise. Demand for pollution control instrumentation alone will be $390 million by 1980 reflecting an annual growth rate of 15 percent. By the end of 1976, the Ministry of International Trade and Industry estimates, the market for all pollution corrective equipment will top $3.27 billion. Pollution technology offers opportunities for advanced U.S.-designed corrective equipment and instrumentation. Mara Yachnin, 202-377-5751.

Hotel and Restaurant Equipment/Franchising U.S.A. Stockholm. March 14-18. Promotion is aimed at Sweden, Norway, Denmark and Finland. In Sweden purchases of hotel/restaurant/institutional feeding equipment totaled $45 million in 1975—half by the public sector, 10 percent by employees' cafeterias and the remainder by hotels and restaurants in the private sector. These sales are expected to increase 9 percent annually over the next several years. The concept of franchising has been in the testing phase in Sweden but now appears to be entering the take-off stage. Jim Price, 202-377-2797.

Pumps, Valves and Compressors Catalog Exhibit. Bombay and New Delhi. March 14-24. India's five-year plan calls for an $18 billion industrial development program ($11.1 billion to public sector, $6.9 billion to private/cooperative sector) to maximize current output and create new capacity in certain target industries, including fertilizer/chemical, petroleum exploration and refining, petrochemicals, electric/nuclear power and industrial process equipment. India imported $35 million worth of PVCs during the fiscal year ending March 31. The U.S. share of this market has consistently run at about 33 percent. India's imports of PVCs are projected to total $143 million through March 31, 1979. 202-377-3973.

Computer Equipment Trade Mission to Belgium, Netherlands and Luxembourg. March 14-25. Will focus on computer applications for business efficiency and will promote such equipment as minicomputers, on-line point of sale systems, stock control and distribution systems, input devices for electronic computers such as optical character recognition (OCR), high speed printers, programmable terminals with local mass storage, and bank and financial terminals. Will also include computer programming and other software services. The U.S. share of computer imports into the Benelux countries is currently 84 percent for minicomputers, 23 percent for small, medium and large computers, and 23 percent for peripheral equipment. William Vitous, 202-377-3746.

Exhibit and Technical Seminar on U.S. Water Pollution Monitoring and Analysis Instrumentation and Systems. March 21-25. U.S. Commercial Office in Moscow. The purpose of this exhibit/seminar is to explore trade opportunities for U.S. water pollution equipment through discussion with a highly selected group of Soviet foreign trade officials, scientists, technicians and end-users. Each participating U.S. firm will be responsible for mounting a small exhibit and presenting a technical paper. Limited to seven companies. Judith Robinson, 202-377-3376.

Educational and Training Aids Exhibition. U.S. Trade Center, Sydney. March 28-April 1. Rating remarkably high as an education-conscious nation, Australia's utilization of multi-media learning materials instead of heavy reliance on printed materials has been one of the major developments in education over the past decade. Such educational reforms have produced an exceptionally good market for U.S. audio-visual equipment, technology, and related training aids. End-users include 4 major sectors, i.e., education, government, institutional, industrial and commercial. The total Australian market for audio-visual equipment is estimated at US$150 million annually, whereas the total market for books, periodicals, and other printed matter exceeds US$136 million annually. Recent trends indicating good sales opportunities for U.S. manufacturers in these product categories together with the success of an Audio-Visual Marketing and Training Aids Exhibition held at the Trade Center in 1972 underline the decision to sponsor the current exhibition. Ronald E. McCowen, 202-377-4957.

Agricultural and Food Processing Equipment. Budapest. April 15-20. Hungary relies on exports of agricultural products and processed foods to earn hard currency. AGROMAS EXPO is an opportunity to meet Hungarian buyers and end-users at a specialized commercial exhibition. Mike Frisby, 202-377-5186.

Electronics Industry Production and Test Equipment; Tandem Exhibitions at U.S. Trade Centers in Stockholm, April 18-21; and London, April 26-29. Market research recently conducted in Scandinavia and the United Kingdom has identified opportunities for the sale of U.S. EIPT equipment. The United States is a major supplier to these countries. Call William G. Stepp, 202-377-4602.

Hydraulic, Pneumatic and Advanced Fluid Power Systems, Equipment and Components Exhibition. U.S. Trade Center, Tokyo. April 18-22. A seminar will be included. The Japanese recognize superiority of U.S. production. In 1975 the market for both hydraulic and pneumatic power systems was $519.7 million. The market in Japan for hydraulic power systems will grow 10 percent annually for some time, while annual growth for pneumatic power systems will be somewhat less. Robert Levine, 202-377-4056.

Automotive Maintenance and Servicing Equipment Exhibition. U.S. Trade Center, Taipei. April 18-22. The market for this equipment in the Republic of China is expected to increase by 50 percent to about $12.7 million by the end of 1977, with the U.S. supplying approximately one-fourth. Rapid industrialization with concomitant expansion of the highway network have led the government and private sectors to a growing awareness of the need for greatly improved safety and maintenance techniques. Charles D. Jones, Jr., 202-377-5545.

Plastics Production Machinery and Equipment Exhibition. U.S. Trade Center, Mexico City. April 18-23. Mexico's plastics industry is expected to register especially rapid growth over the next few years. Consumption of plastics production machinery has been increasing at almost 15 percent annually, to $35.2 million in 1976. Some 85 percent must be supplied by imports, and the U.S. is the major supplier. In a February 1975 exhibition of this equipment, sales results were $1.5 million off-the-floor and almost $11 million projected. A technical seminar will be included. Mary R. Wiening, 202-377-4463.

Scientific and Industrial Laboratory Instruments Exhibition. U.S. Trade Center, Paris. April 19-22. In 1975, the French market for laboratory instruments amounted to $154 million. Most was supplied by imports, of which the United States accounted for 30 percent. Imports from the U.S. are expected to continue providing about one-third of total imports of a market which in 1980 should be about $240 million. Market research shows a good market for chromatographs, mass spectrometers, oscilloscopes, N.M.R. spectrometers and automatic analyzers. Ned Krause, 202-377-5381.

Business U.S.A.—A Business Equipment Exhibition. Hong Kong. April 25-29. Automation of office procedures and a large demand for modern business equipment in Hong Kong will result in yearly market growth of 32 percent between 1976 and 1979. Imports are projected to reach $54 million by 1979, double the level of 1974. A full range of electronic office machines, copying/duplicating equipment, microfilm equipment, electronic banking machines, letter handling/addressing/mailing machines, paper/check/coin-currency handling machines, and dictation equipment is required for all phases of the business community. Joseph Burke, 202-377-5285

Printing & Graphic Arts Equipment Exhibition & Seminar. U.S. Regional Trade Center, Singapore. April 25-29. Market research indicates that an exhibition to capitalize on U.S. market share growth potential is warranted. The revaluation of German and Japanese currencies has made U.S. equipment even more attractive. U.S. suppliers now have an excellent opportunity to effectively compete with third country sources. J. Lee Barnes, 202-377-3893.

Industrial Process Controls and Instrumentation Exhibit. Caracas. April 25-30. Venezuela, buoyed by oil income, is attempting to establish a modern industrial economy in the shortest possible time. Industrial process controls will be playing a major part in this development. By 1978 at least 90 percent of process control requirements will still be filled by imports and U.S. manufacturers are expected to hold a 64 percent share of the $32 million market; this is equal to a 16 percent annual growth rate over the $15 million imported in 1975. Hans J. Amrhein, 202-377-2332.

Outdoor, Leisure and Recreation Equipment Exhibition and Seminar. U.S. Trade Center, Sydney. May 2-6. The combination of greater leisure time and new levels of affluence has created a surging interest in outdoor recreation in an already sports-minded continent. Dramatic increases in

consumption, up 60 percent in the past two years, have pushed annual retail sales of this equipment over the $146 million mark. U.S. suppliers will find a wide range of products with high sales potential. Lars Lofas, 202-377-3646.

Industrial Assembly Equipment Exhibition. U.S. Trade Center, Paris. May 9-12. French market for this equipment expected to grow to $925 million by 1978, with imports of $376 million. George Ruffner, 202-377-5381.

Food Processing & Packaging (FPP) and Agricultural Machinery & Equipment (AGME). Novi Sad, Yugoslavia. May 13-22. Yugoslav imports of AGME and FPP are forecast at $95 million and $55 million, respectively, for 1977. Government officials have recently designated self-sufficiency and increased export potential in these industries as a top national priority. A full range of processing, forming, filling, sealing, wrapping and packaging equipment is required in FPP; opportunities for sales of AGME include all varieties of planters, spreaders, dryers, loaders, and large combines, planters and harvesters. Contact Kenneth Nichols, 202-377-2762.

Hydraulic, Pneumatic and Advanced Fluid Power Systems Equipment and Components Exhibition. U.S. Trade Center, Tokyo. May 16-21. The Japanese market for this equipment is estimated to reach over $800 million by 1980. Over the past three years, in spite of a flagging Japanese economy, imports were increasing with U.S. supplying better than 75 percent. Specific end-user fields where U.S. products command a superior position are nuclear energy, ocean development, pollution control and aerospace development. Call 202-377-4056.

In-Store Promotion. Georges Australia Ltd. Melbourne. June. Will feature U.S. men's, women's and children's wear, accessories, housewares, household linens, cosmetics and stationery. Store contact: Alan M. Forbes, Mng. Dir., Georges Australia Ltd., 162 Collins St., Melbourne. U.S. buying office: Mutual Buying Syndicate, Attn. Camille Galbo, V.P., 11 W. 42 St., New York, N.Y. 10036. Mollie Cleveland, 202-377-4705.

U.S. Pavilion, 32nd Paris Air Show. June 2-12. Internationally long recognized as the key marketplace for the aerospace industry, the biennial Paris Air Show regularly attracts the largest international audience of industry, government and military aerospace buyers. With the total value of U.S. aerospace exports for 1976 estimated to exceed $7.6 billion, the aerospace industry continues to be the largest exporter among U.S. manufacturers. In 1975, the 68 exhibitors in the U.S. Pavilion reported $2.84 million in off-the-floor sales and projected an additional $92.8 million in 12-month sales. Beryl D. Cohen, 202-377-4961.

Interhospital '77. Hanover, Germany. June 7-10. Commerce will have a U.S. pavilion in Europe's leading fair for hospital equipment. Nowhere else is such a concentrated opportunity offered to make direct contact with customers and potential purchasers. Interhospital will be divided into nine exhibit sectors: 1) medical techniques; 2) technical treatment equipment; 3) furnishing and equipment; 4) large-scale catering equipment; 5) laundry and chemical cleaning equipment; 6) catering supplies and materials; 7) food; 8) hospital textiles; and 9) services. Contact Robert Wallace, 202-377-3748.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

FRANCE — A major company seeks to license patents or know-how on **gas-intensive techniques,** products or processes which require large consumption of gases. Products' or techniques' end application may be suited to variety of uses, or process may be result of increasingly sophisticated manufacturing techniques; but product or process must consume gases. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76863.

0212—SAUDI ARABIA — Joint venture arrangement sought with experienced U.S. firm to establish ranch for raising **beef, cattle, sheep and camels for slaughter.** Ranch would comprise 2,000 sq. km. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76857.

2020 — IRELAND — Manufacturer of dairy products seeks licenses to produce **food products,** including dairy products. P. F. O'Shea, Dir. of Technical Development, Avonmore Group of Companies, Kilkenny. P-76855.

2490—CHILE—Chilean Development Corporation seeks to sell to foreign investor 78.8 percent equity in local firm. Company, "Industria de la Madera, Impregna S.A." is engaged in **wood impregnation and related activities.** Specifications may be obtained at CORFO, Moneda 921, 8th Fl., Of. 822, Santiago: cost, $26.40. Offers must be sent in duplicate and in sealed envelope, to: Vice Presidente Ejecutivo De CORFO, Moneda 921, Of. 825, by 12 noon, Nov. 19. P-76864.

2492—SAUDI ARABIA — Trading company seeks joint venture to produce **particleboard** for wall panels using local timber sources. Estimated cost of project is $9 million, of which one-half is sought from U.S. participant. Abdullah M. Al-Matrodi, owner, Al-Enjaz Office for Trading & Contracting, P.O. Box 3568, First Nat. City Bank Bldg., Suite 406, Riyadh. Telephone: 20573. P-76858.

2851—KENYA — Seeks joint venture to produce **standard latex decorative wall paints, flat and enamel, interior and exterior; standard decorative paints for wood, interior and exterior; paint for asphalt and aluminum roofs;** and **paint for cement surfaces.** Firm is also especially interested in following types of paint: metal, epoxy based, marine, automobile and light aircraft. Company currently produces PVA adhesives, contact cements, and PVC coated fabrics. M. Yovel, Mng. Dir., Serafric Co. Ltd., Lusingeti Rd., P.O. Box 47679, Nairobi. P-76862. OPIC.

3010—AUSTRALIA—Company is seeking to extend its product range in rubber or plastic components by manufacturing under license, through contract, or by agency distribution with overseas companies. Summary of products sought includes: **inflatable products for milk industry; hardware and plumbing lines; automotive accessories (rubber and plastics);** and **rubber sheeting.** Peter G. Harding, Industrial Adviser, New South Wales Center, Suite 6259, Five World Trade Center, New York 10048. Reference D76/1059.

3079, 3564, 3589—SWEDEN—Seeks technology through license or joint venture to manufacture following type of products: **plastic centrifugal fans in materials such as PVC, PP, FRP; plastic roof fans; scrubbers made of plastics; chemical containment air purifying equipment; and water treatment equipment specifically designed for galvanic industries.** Established in 1948, firm has 35 employees; annual sales, $1.2 million; is owned by AB Stobo. Company currently manufactures plastic fans, plastic dust systems, and small scrubber equipment. Rolf Arrman, Mng. Dir., AB Arex, Box 119, S-615 00 Valdemarsvik. Telephone, 0123/120 50; cable, AREXPLASTIC. P-76865.

3100—BANGLADESH — U.S. know-how sought for **leather finishing and/or production and manufacture of leather products.** Direct contact is sought only with companies in aforementioned operations. Send name, address, brochures for transmittal to project proposer to Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76856.

3312—INDIA—Bombay firm is interested in obtaining U.S. license to manufacture **composite steel** (mild steel with alloy steel insert) generally used as raw material for production of industrial knives. Partnership firm presently acts as importer and distributor of tool and alloy steel, composite steel and stainless steels, sales agent of manufacturer of circular saws. Its partner produces annually 400 M.T. of machine knives and 9,000 M.T. bright bars and shaftings. Proposed project envisages plant to manufacture 400 M.T. of composite steel annually. L. K.

Agerwal, Bashimal Vinod Kumar (VK), 132/134 Pradhan Bldg., Sardar Vallabhbhai Patel Road, Bombay 400 009. Cable, CHAFNIFE; telex, 011-3935. P-76873. OPIC.

3429, 3523—AUSTRALIA—Manufacturer wishes to diversify by increasing present range of products to include **agricultural equipment, builders hardware items, railway equipment and mechanical handling products.** Company is also willing to expand facilities to manufacture products considered marketable in Australia. Peter Harding, Industrial Adviser, New South Wales Centre, Suite 6259, Five World Trade Center, New York 10048. Reference D75/1527.

3443—ECUADOR—Medium-sized firm is interested in joint venture for manufacture of **boilers, sterilizers and kettles.** Interested party should be prepared to contribute patent name, machinery and equipment and equity (not to exceed 30 percent of total investment). Firm is experienced in installing, maintaining, and repairing aforementioned products. Ricardo Cassis, Gen. Mgr., IMA—Ingenieros Mecanicos Asociados Cia. Ltda., P.O. Box 3380, Guayaquil. WTDR. P-76854. OPIC.

3523—BELGIUM—Seeks license to **manufacture small machinery, particularly farm implements.** Presently manufactures portable milking machines; operates own sales force. Exports bulk of its production to Common Market, Ireland, Greece, South America and Africa. Is also interested in expanding outside farm machinery industry. Louis M. de Marcken, Mng. Dir., NATELCO s.a., Zoning Industriel de Bierges, Blvd. de l'Europe, B-1300 Wavre. Telephone, 010/41.34.35. P-76859.

3523 — UNITED KINGDOM — Seeks licensing agreement for manufacture of **bulk grain and feed storage bins.** Cooperative's 10,000 member farms (supporting about 280,000 cattle of beef and dairy types) presently receive their feed in bagged form. Coop management is expanding feed-mill capacity, and wishes to offer 6-, 8-, 12- and 20-ton bins to members when new plant is finished next summer. (Individual beef herd runs up to 300 head.) Poultry and pig feed conversion to on-farm bulk storage is also under consideration. Cooperative's present truck fleet can carry up to 12 tons per vehicle. North Eastern Farmers' membership presently look for metal structures, management favors fiberglass bins. Sales outside northeastern Scotland are not envisaged at this time. Edward Rainey Brown, Sales Development Mgr., North Eastern Farmers Ltd., Bannermill, Aberdeen AB9 2QT, Scotland. P-76866.

3523—UNITED KINGDOM — Manufacturer and exporter of agricultural axles, agricultural hydraulic rams, and suspensions, seeks to obtain licenses from U.S. firms to manufacture **new products.** Such products would be in **agricultural and industrial hydraulics, agricultural and industrial water metering devices and light components to be produced in general engineering machine shop.** Firm exports to all Europe, Australia, the Near and Far East and Africa. Established 1924, employs 550. James S. Lyon, M/D, Hunton Int'l Ltd., Int'l House, Drayton Road, Norwich, Norfolk NR3 2AH, England. P-76875.

3531—UNITED KINGDOM—Large firm, engaged in manufacture of hydraulic tipping gear and fabricated bodies for commercial vehicles, is interested in licensing agreements to manufacture products embracing hydraulics and metal fabrication preferably in sphere of **mechanical handling or earthmoving equipment.** Firm is part of large Wilmot Breeden Holdings Co. and employs 492. P. F. Mullholland, Mng. Dir., Telehoist Ltd., Manor Road, Cheltenham, Gloucestershire GL51 9SH, England. P-76867.

3535—AUSTRALIA—Company is seeking to expand its manufacturing base by obtaining licenses to manufacture **equipment for materials handling, storage and solid waste handling and disposal.** Company is prepared to enter joint venture association if so required. Peter Harding, Industrial Adviser, New South Wales Centre, Suite 6259, Five World Trade Center, New York 10048. Reference D76/1316.

3541, 3542—GERMANY — Manufacturer of **numerical controls for machine tools** seeks collaboration with company active in the same field. Firm envisages distribution of U.S.-made NCs with prior modification to German standards and market requirements, assembly of equipment with or without inclusion of German domestic components, license manufacturing or cross licensing, or any other cooperation agreement profitable to both partners. Maintenance and servicing of equipment in Germany and surrounding countries will be provided by foreign firm. Herr Ing. Grad. Dieter Laese, ELMETIC Steuerungstechnik GmbH, Weglache 5, 6200 Wiesbaden-Erbenheim. P76868.

3554—BELGIUM—Small manufacturer of **wide range of machinery and specifically equipment for paper, carton and paper board industries** seeks licensing arrangements to produce similar equipment. Firm has capability of manufacturing "medium-sized" machines. Its equipment can support items of about 5 to 8 tons. Company has its own engineering office and is particularly strong in paper mill equipment design. Employs 50. Edmond Chantreinne, Dir., Ets. Ed. Chantreinne s.p.r.l., 3, rue Delfosse, B-1400 Nivelles. Telephone: 067/22.21.91. P-76861.

3585—SAUDI ARABIA — Local trading firm is interested in importing and distributing equipment to produce energy from sun and wind, e.g., **solar cooling and heating equipment, wind energy systems, and photo voltaic electric power equipment.** Firm is also interested in possible joint venture arrangement to produce solar cooling equipment. Capital would come from Saudi firm; U.S. firm would provide technical know-how. Mahboob Ahmed, Al-Huseini Corp., P.O. Box 851, Jidda. P-76869. OPIC.

3589—UNITED KINGDOM—Seeks technology from U.S. firms in offshore oil exploration. Areas of interest include: **Degasification and/or de-aeration processes for water flooding of oil reservoirs; equipment packages for thermal recovery of oil from reservoirs; and electrochemical and other processes for breaking emulsions.** Company is well established as quality contractor to international petroleum industry, having completed multi-million dollar projects overseas and having been involved in design, supply and erection of five North Sea platforms. Is manufacturer and contractor for water treatment systems, heat exchangers, etc., and is subsidiary of a major U.K. engineering group which has annual sales exceeding £800 million. Interested firms should contact Douglas G. Hartley, Asst. Commercial Attache, U.S. Embassy, 24 Grosvenor Sq., London W1A 1AE, England, and refer to licensing opportunity No. 170. P-76860.

3621—AUSTRALIA—Company wishes to obtain technology or enter into licensing agreement to manufacture proven range of **solid state inverters** to complement range of equipment already designed and manufactured by company for sale in Australia and near countries. Peter G. Harding, Industrial Adviser, New South Wales Centre, Suite 6259, Five World Trade Center, New York 10048. Reference D76/1396.

3731—UNITED KINGDOM — Small shipyard, specializing in **building workboats** (about 30 ft. long), **small tugs** (about 50 ft. long), **fishing vessels, yachts, landing craft,** seeking licensing and/or joint venture arrangement to build vessels to its design and specification for marketing in U.K./Europe. Firm works in wood, steel, and glass reinforced plastic. Lt. Cdr. R. J. Bedford, Dir., Porthleven Shipyard (Cornwall) Ltd., Harbour Office, Porthleven, Cornwall TR13 9JC, England. P-76870.

3811—CHILE—Chilean Development Corporation offers for sale Empresa Nacional De Instrumentos De Precision Ltda. (ENAPRI). Plant, equipped to mount and manufacture dimensional metrology instruments, is located in industrial borough of Alto Pennelas, Coquimbo. Specifications may be obtained at CORFO,

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Moneda 921, 8th Floor of 802 Santiago. Cost, $26.14. Offers must be sent in duplicate and in sealed envelope, to: Vice Presidente Ejecutivo De CORFO, address above, by 10 a.m., Nov. 30. P-76871.

3841, 3861—UNITED KINGDOM—Manufacturer, distributor, importer, exporter of **medical electronic equipment; high speed recorders, cardiac pacemakers and photo electric sorting machines,** seeks licensing agreements for products compatible with its present range. Annual sales volume, $8 million. A. J. Smale, Mng. Dir., Devices Ltd., 26-28 Hyde Way, Welwyn Garden City, Herts AL7 3AP, England. WTDR. P-76874.

4500—BOLIVIA—Government of Bolivia, Office of Civil Aviation is seeking joint venture to establish **aviation maintenance facility and/or radio repair service and overhaul facilities** in one or all of several air transport facilities. Bolivia has four major aviation centers with maintenance facilities as follows:

La Paz—Elevation, 13,400 ft.; commercial operations are mostly air carrier services; cargo is transported by B-17, B-25, C-46, DC-4, DC-7 type aircrafts; present maintenance facilities and R-2800 overhaul shop are below acceptable standards; private and corporation aircrafts such as Cessnas, Aero Commanders, Mu and Lear Jet operate from this airport.

Cochabamba—Elevation, 8,370 ft.; centrally located in Bolivia; is the executive, operational and maintenance base for Lloyd Aero Boliviano (LAB), the National Airlines; air taxi services and religious mission aircraft are flown with Cessnas, Beech, Bell, DC-3, etc.; C-46, DV-440, F-27 and C-82 aircraft are in cargo operation; two flight schools, one mechanic school, lab shops and training facilities are operated from this field.

Trinidad—Elevation, 765 ft.; is dependent on air taxi services; one flight school and two poorly equipped maintenance shops are located here.

Santa Cruz—Elevation, 1,1440 ft.; no maintenance shops exist; work is accomplished out of tool box and in shade-tree fashion; airport has many sales vendors representing Beech, Piper, Cessna, Aero Commander, etc.

Heavy air taxi services are necessary. Most air taxi operations are flown in comparatively late model general type aircraft. Bolivian Air Force operates from these fields. For additional information, contact Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76872.

Korean Firm Needs Materials

The Korean Tacoma Marine Industries (KTMI) has just negotiated a contract with the Government of Indonesia for the sale of four high-speed patrol boats.

KTMI has advised that all U.S. procurement of materials for the contract will be handled by its U.S.-based trading affiliate, Union Pacific Trading Co. (UPTC). UPTC is represented by Donald Vaughn, P.O. Box 629, Tacoma, Wa. 98401. Approximately $23 million worth of materials, including propulsion systems & aluminum sheet metal, will be procured offshore, and a majority of this business could go to U.S. suppliers already enjoying a commercial relationship with KTMI via UPTC. The Govt. of Indonesia is to purchase and furnish the weapons systems, which it is believed will be of Dutch/Italian origin.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Department's Export Administration Regulations. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Timber tracts

● **08110—CAMEROON** — Societe Becoroy (Paris) has issued invitation for tenders regarding Cameroon lumber project of affiliate Societe Forestiere et Industrielle de Belabo (Cameroon). Project includes: A) Forest industry likely to produce 158,000 cubic meters of logs per yr., to be processed in Cameroon or exported. Forest and civil engineering equipment, transport and commercial vehicles, radios & power chain saws are required. B) Sawmill, with production of about 16,000 cubic meters per yr. C) Plywood factory, with production of about 24,000 cubic meters per yr. D) Power station for steam and electric supply for the factories and auxiliary facilities. E) Tools and machines for building and maintenance. F) Prefabricated, metal buildings. Societe Becoroy can provide additional information upon request. Technical specifications available for 100 French Francs ($20) per spec. from Monsieur Le President Directeur Gen., Societe Becoroy, 38 Rue Brunel, 75017 Paris, Tel: 754-3316; Telex: 660-150 Becoboi, Paris. Bid deadline for A, E, F is Nov. 15; B, C, D is Dec. 15.

Building construction

● **15100, 16200 — AUSTRALIA** — Tender for design, manufacture, supply, delivery, erection, testing, commissioning, painting and maintenance of coal handling plant for Gladstone Power House, to be completed by September 1980. Major features include 2500 MT stacking out system, slot bunker to provide live storage in stockpile area, and 800 MT conveyor reclaim system with plow feeder. Financed by State and Federal Government budget. Tender aplication available for 20 Australian dollars (US$25) from V. Baker, State Electrical Commission, Warry St., Fortitude Valley, Queensland, 4006. Probable cost estimated between $5 and $6.25 million. First phase of planned $100 million expansion program. Bid deadline Dec. 8.

Women's, misses', children's, infants' undergarments

23400, 23600—FRANCE — French manufacturer of children's clothing wishes to import U.S. ready-to-wear denim clothing for sale and distribution in Europe. In return, French firm expects American supplier to distribute its products in U.S. market. For further information contact Peter B. Alois, U.S. Department of Commerce, Foreign Buyer Program, Washington, D.C. 20230, 202-377-3265.

Wood buildings

24520, 34480—IRAN—Firm of Gh. Mostaghim & Sons interested in representing U.S. housing manufacturer in Iran. Engaged in general commerce and market consulting. Interested U.S. firms contact Gh. Mostaghim at 210 Shah Ave., Tehran, telephone 662956-8, telex: 212529 HASO, cable: EKDAK.

Fabricated rubber products

3069711—GERMANY—Rubber druggist & medical sundries, including household gloves, water bottles, fountain syringes & combinations. W. Berlin importer & agent specializing in trade with GDR seeks import substantial quantities of all types of hospital & medical equip. for distr. to W. Berlin market & resale to end-users in GDR. Metric measurements only. Quote c.i.f. German port if possible. Reply to Erwin Kohlt, Erwin Kohlt Co., Anfred-Von-Richthofen-Strasse 75, D-1000 Berlin 42, Tel. (030) 786-50-31; telex 01-83-229.

Steel mill products

● **33100—PAKISTAN**—200,000 ft. 3″ diameter, 300,000 4″ diameter, 180,000 ft. 6″ diameter, 90,000 ft. 8″ diameter, 20,000 ft. 10″ diameter, 70,000 ft. 12″ diameter water distribution pipe. Also fittings for above pipes. Tender No. WASA/WS/003; bid deadline Dec. 14. Lahore Development Authority, 4A Gulberg V, Lahore. Tender documents

available from above address at $20 per set.

• 33100—ECUADOR—14,600 pieces cast iron water pressure pipe to be used in residential water intakes. Tender No. 05-76; bid deadline Dec. 1. Empresa Municipal de Aqua Potable de Guayaquil, P.O. Box 5253, Guayaquil. Tender documents available from above address at $200 not later than 20 days before bid deadline. U.S. firms must have local representative.

• 33100—INDIA — 800 kms galvanized iron wire with accessories. Tender No. IDA/604/GEB/5; bid deadline Dec. 20. Gujarat Electricity Board, Vidyut Bhavan, Race Course, Baroda 390 007, Gujarat. Tender documents available from above address at $13.33.

• 33100—GHANA—10,500 meters of 90 mm diameter and 7,000 meters of 700 mm diameter pressure pipe with fittings for water mains. Tender No. MS/3; bid deadline Jan. 14. Associated Engineering Services Ltd., c/o Ghana Water and Sewerage Corp., P.O. Box 1840, Accra. Tender documents from above address or from Associated Engineering Services Ltd., 1661 West 8th Ave., Vancouver B.C. V6J, IVI, Canada at $30 per set.

Rolling, drawing, extruding of nonferrous metals

• 33500—MALAYSIA—760,000 meters of HV and LV paper insulated power cables, various sizes. Tender No. 13883; bid deadline Dec. 21. National Electricity Board, P.O. Box 1003, 129 Jalan Bangsar, Kuala Lumpur 22-06. Tender documents available from above address at M $100 (M $2.50 equals US$1).

• 33500 — SINGAPORE — Supply of shielded telephone cable for PCM transmission. Tender No. PT/127/76(x); bid deadline Dec. 10. Purchasing Telecommunication Authority of Singapore, Lines and Switching Department, 68 Orchard Rd., Singapore 9. Bidders who do not have an agent in Singapore may obtain tender documents from above address by paying a tender deposit of S $2,000 (about $819).

• 33500—SINGAPORE — Supply of pulp insulated sheathed telephone cable. Tender No. PT/126/76; bid deadline Dec. 3. Telecommunication Authority of Singapore, Lines and Switching Department, 4th floor, 68 Orchard Road, Singapore 9. Cable: Telecom Singapore. Tender documents available from above address; deposit of S$2,000 (about US $819) required of bidders without agent in Singapore. If you do not have a rep., contact nearest Dept. of Commerce District Office.

• 33500—COLOMBIA—Two high tension submarine cables of 66 KV, 1.3 kilometers in length. Project includes design, stringing, mounting and financing. Tender No. 014/76; bid deadline Dec. 14. Electrificadora de Bolivar, S.A., Cospique Mamonal, Cartagena. Specifications available from above address at 1,500 pesos ($43). Bids must be presented through local representative.

• 33500—THAILAND — 10,000 meter 15 KV copper cable, single conductor, insulated with cross-linked polyethylene, No. 2 American wire gauge; 5,000 meter copper cable, No. 2 0 AWG; 12,000 meter copper cable, No. 500 million circular mil. Tender No. ADB-MEA-327; bid deadline Dec. 15. Metropolitan Electricity Authority, 121 Chakietch St., Bangkok 2. Tender documents available from above address at $5 per set.

Hand tools, metalworking mach., service industry machines, electrical industrial apparatus

34231XX, 3541529, 3589291, 3623XXX—ECUADOR — Mechanics' hand service tools; all types. Also, one meter mfg. & tool room lathes. Also, automatic & non-automatic car washing machinery; car undercoating machinery, utilizing silicone products or waxes instead of paint; "British armour glaze" type car body polishing machinery. Also, welding apparatus, electric; all types. 60 cycle 110/220 volt ac available. Send literature & quote c&f Guayaquil against l/c or s/d. Requestor reputable British organization operating chain of gas filling stations. Staff 104. WTDR in prep. Reply ASAP to Raul F. Alvarado, Mgr., Ecualube S.A., PO Box 7037, Guayaquil. Cable Ecualube; phone 3-00816.

Metal stampings

3466169—ISRAEL—Metal closures other than crowns—specifically aluminum tops. Size: 202 diameter; type: tear off tab; end use: canned frozen & fresh citrus juice; quantity required: 1 million drinking spout, 1 million full opening. Inquirer requests f.o.b. quotations & samples if possible ASAP as tops needed for current season by leading Israeli can mfr. Payment C.A.D. or L/C. Est. annual potential sale $100,000. Newly established; independent agent for steel & allied industries. 25 years experience in this field. Employs 3; expected sales for 1976 $250,000. Reply to—M. E. Weitzman, P.O.B. 146, 24 Jerusalem St., Kfar Sava. Telex 32470 (ATT 5027); tel. 052-20371.

Special industry machines

35521XX—TURKEY—One textile warping, sizing & finishing machine to incl. drying & thermosetting, thermofixing & heat setting compartments with oil circulation heating system, pin-clip combination chain. Speed: 50-60 meters/min. Width of tulle curtains to be processed: 3 meters. Weft straightener should be quoted separately. One doubling, measuring & packaging machine with capacity 30-35 meter/min. Width of machine at inlet 3 meters & at outlet 1 meter. Buyer textile mfr. since 1956. Produces 18 million meters tulle curtains & texturizes 4,000 tons yarn/yr. Employs 2,000. Interested U.S. suppliers communicate ASAP with firm directly, sending catalogs & prices f.o.b. & c.i.f. Istanbul. Reply to—A. Erdogan Aksu, Sancaktul Sanayii A. S., Halikali Youl 93, Safrakoy, Istanbul. Cable Sancaktul Sanayi-Istanbul; tel 737250.

Electric lighting, wiring equipment

36410XX—PORTUGAL—Lamps for aviation ground lighting equipment. Various types, quantities from 36 to 1,400 units. Buyer requests quotations ci.f. Lisbon; reportedly offers excellent representation for U.S. firm. Contact J. Montenegro, J. Montenegro, Lda., Rua Joao Pedro Ribeiro 725, Oporto; telex 25215 JML-P, telephone 495807. List of lamp types available from Consumer Goods and Services Division, U.S. Dept. of Commerce, Washington, D.C.; 202-377-2923.

Engineering, laboratory, scientific, research instruments

3811221—GERMANY—Vacuum or thermo-scales, test weight 50 grams, sensibility 1 microgram, compensated electric weight up to 15,000 milligrams, heat resistance up to 400 degrees c. Must order before Nov. 12, due to closing of business year. Quote f.o.b. U.S. harbor. One of best known German technical high schools. (Educational institution, non-profit organization). Reply ASAP to Herr Dipl.-Phys. Weiss, Technische Hochschule Aachen, Institut F. Eisen-und Huettenkunde, Intzenstrasse 1, 5100 Aachen. Tel 0241-425813.

Scrap materials

5093XXX—TURKEY—Steel scrap. Approx. 200,000 tons annually. Presently importing from Japanese sources. Interested suppliers should communicate with Eka giving prices f.o.b. East Coast c.i.f. Istanbul. Reply to—Eka Klima ve Tesisat A.S., Buyukdere Cad., Hukukcular Sitesi, Teras Kat, Mecidiyekoy, Istanbul. Cable Ekrem-Istanbul; tel 664924; telex 22885 Eka Tr.

Antique, secondhand stores

5931XXX—BOLIVIA—Automotive maintenance equipment, used. Reply to Reimex, Manuel Alarcon, Casilla 629, La Paz.

5931XXX—GUATEMALA—1 used 2000 KW AC steam turbine to operate at 200 PSI. 1 used hydraulic generator set to operate at very short drop (3 cubic meters/second). Turbine to run at 175 RPM; generator at 1250 RPM producing 500/600 KW AC. Firm is one of largest sugar mills in Guatemala, whose plant has cap. of 4000 tons/day. Wishes to set up small hydro power station to produce its own power as well as buy steam turbine. Reply to Friedrich Gernandt, MGN, El Salto, S.A., Finca El Salto, Escuintla, Guatemala.

5931XXX—TOGO—Used clothing. Firm located commercial area. Deals in gen. goods and sells mostly by wholesale. Employs 11 and makes approx. $80,000 yearly. Wish to import youth's wear, incl. trousers, shorts, shirts & polo shirts. Reply to: B.S. Olympio, Dir., ETS B.S. Olympio S.A., BP 1496, Lome.

Motion pictures

7813XXX—BOLIVIA—Films in Spanish, 8mm. Correspondence in Spanish. Direct sale & ag. Reply to Jorge Guitierrez, Casilla 1067, Santa Cruz.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Ferroalloy ores

1061XXX, 1099XXX—INDIA—Two M/T/yr. molybdenum ore; platinum. Wishes represent U.S. firms which supply above. Quantities mentioned against products are only estimates. Firm claims to represent Titan Industrial Corp., New York, & Indian mfgs. of a wide range of products, such as chemicals, communications equipment, machine tools, rubber, minerals, & textiles. Reply to A. G. Amin, Commercial Mng., Kalyan Asso., 4-3-632 Tilak Road, Ramkote, Hyderabad 500001 Cable Aminfile; tel 53066.

Sawmills, planing mills

2421811—AUSTRALIA — Softwood flooring. Medium size mfr. distr./importer & exporter of home insulation; spiral staircases. Imports from New Zealand. Employs 120. Annual sales volume $2.6 million. Interested in agency, distr., & mfr. under license. Reply to E. H. Nieman, Mng. Dir., Weathermaster Pty. Ltd., 2 Attenborough St., Dandenong, Vic 3175. Cable Weathermaster Melbourne; tel 03-7929364.

Wood products

2499598, 3999998—UNITED KINGDOM—Wood bee-keeping products; bee-keeping products other than wood. Estab. 1957, employing 45. Mfrs. automobile test equip. Launching new program & seeks supplies of bee-keeping equip. for sale to hobbyist trade. Reply to—P. B. Ingle, Speedograph Ltd., Darlton Drive, Arnold, Nottingham. Tel 0602-264235; telex 377-136; cable Tachograph Nottingham.

2499583 — NETHERLANDS — Woodenware. Excl. agency. Estab. 1947. Staff 23, auth. capital fls. 100,000; paid in 40,000, annual sales fls. 30,000,000. Bankers—Amro-Bank NV, Overtoom 89, Amsterdam. Representations incl. — Kraemer Mercantile Corp., 500 Fifth Ave., N.Y.; Sportsotron Intl., Inc., 85 Engineers Rd., Smithtown, N.Y.; Pragoexport & Merkuria, both in Prague, Czechoslovakia. Recommend transactions on secured basis. Reply to—J. Simons, Mgr., Harry Simons Agencies BV, Tijnmuiden 20/22, PO Box 8258, Amsterdam-Sloterkijk 3. Cable Simag; twx 14251; tel 020/115151.

Special industrial machinery

3559589—SPAIN—Machine for winding rubber thread used in mfg. golf balls. Requests information on machine, its operation & price. Medium-size business engaged in mfg. golf balls. Would like to receive information on machinery & equip. used in U.S. for mfg. golf balls. Correspondence in Spanish. Call or cable Cesar Seville Eneiso, owner, Avda. D. Eliseo, 21, Arnedo, Logrono. Tel.: 941 380 031.

General industrial machinery

35699XX—34994XX — SWEDEN — Hydraulic jacks, especially low-fitting operating in any position. Hydraulic pumps, valves & cylinders for heavy workshop & industry. Permanent magnets for lifting metal sheets & other metal wares. Vacuum pumps & complete vacuum lifters for lifting metal sheets, board, particle boards, glass & stone. Agent, distr. & importer of iron & steel products, construction equip., metalworking machinery & materials handling equip. Has share capital of skr 1 million & annual turnover skr 12.3 million. Recommended trade contact. Reply to—Hakan Schmidt, Henry Wallenberg & Co., AB, Box 7026, S-103 81 Stockholm. Cable Going; telex 19116; tel 08/23 86 80.

Office, computing, accounting machines; electronic components; optical instruments

3573XXX, 3674XXX, 3679091, 38321XX—SWEDEN—Special purpose terminals; digital communications line interface equip., such as modems, etc; micro-computers, digital, gen. & special purpose; card key entry devices; graphic displays; printers; industrial control input-output equip.; input-output devices incl. plotters; paper tape readers, paper tape, punches, etc.; alphanomeric display terminals based on CRT displays. Also, diodes & rectifiers; light sensitive semiconductors, zener diodes & other semiconductor devices; filters (except microwave), infrared, ultraviolet, etc. Also, PH electrodes & meters; electro-optical test equip.; electro-optical components, except opthalmic & photographic. Large, finan. sound co. has share capital of SKR 21 million. Annual turnover approx. SKR 160 million. 1,800 employees. Affiliated with intl. well known Telefon AB L.M. Ericsson. Highly recommended trade contact. Reply to Hans Edlund, Svenska Radio AB, Fack, S-163 00, Spanga. Telex 10094; tel. 08/752 10 00.

Electrical machinery, equipment, supplies

3699251—BOLIVIA—Musical door bells, different types. Quotations c.i.f. Santos, Brazil or Buenos Aires, Argentina. Correspondence in Spanish. Reply to—Granado Ltda., Carlos del Granado, Ave. Monsenor Rivero 768, Santa Cruz.

Future Construction Abroad

MALAYSIA—Government has announced opening of **port project** located at Pasir Gudang, near Johore Bahru. Includes two dry docks capable of handling ships of up to 400,000 tons and 140,000 tons, respectively. Total project expected to cost M$190 million (US$76 million) when all phases completed. Project is joint venture between government (51 percent), Sumito Shipbuilding and Machinery Co. of Japan, International Maritime Carriers of Liberia and a Malaysian firm, Kouk Brothers Sendirian Behad. OPIC.

SINGAPORE — Telecommunication Authority of Singapore (TAS), Plaza Singapura, 4th Fl., 68 Orchard Rd., Singapore 9, is in second year of **Five-Year Development Program** which involves capital investments of U.S. $400 million for 1975-1980. Following are some of the major purchase areas and projected time frame during which tenders can be expected: Underground cable—tender will be in Nov. 1976 for D-shield cable (truck line), and other tenders for standard cable will be issued throughout 1977. TAS interested in optic fiber technology and may consider buying cables using optic fibers in 1978-79. Pulse code modulation equipment — two tenders have already been won, but there will be additional tenders toward end of 1977. International switching center (gateway telephone/telex exchange)—will be installed in TAS's new headquarters building scheduled to open in 1979; tender in Nov. 1976. Submarine cable projects—ASEAN countries are finalizing plans for number of new underwater cables to connect countries of Southeast Asia. First ASEAN project will be 14 mega Hz cable link from Luzon in Philippines to Singapore to be completed by 1979; tenders for this project and a Hong Kong–Kuantan (Malaysia)-Singapore cable project could be as early as first half of 1977; other projects under consideration are Singapore-Jakarta cable and Singapore-Penang-Indian Ocean cable. Electronic data processing equipment — TAS currently operates two large UNIVAC computers and has plans for a third main frame unit within a couple of years. TAS's new data processing service with telephone hookups should be operational this month; TAS has continuing interest in multiprocessors, teleprints, and other types of peripheral equipment. OPIC.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance to U.S. construction firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's construction insurance program, write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-1854.

BURMA—Planning Department of government's Ministry of Finance and Planning has released short description of proposed **agribusiness opportunities** for a five-year investment program running from Burmese FY 1977-78 to 1981-82. List is available from U.S. Dept. of Commerce, TOP, Rm 2321, Washington, D.C. 20230; 202-377-2251. Many of these projects seem to offer substantial opportunities in the agribusiness sector for a wide variety of U.S. firms ranging from consultants and engineering/construction contracts to direct sales of equipment, machinery, spare parts and livestock.

THAILAND Construction of government-owned Women's Hospital Expansion Project will be completed by late 1977. Separate tenders will be issued in 1977 for supply of **assorted medical equipment.** Interested U.S. suppliers may write to: Dr. Kamol Sinthavanich, Dir. Gen., Department of Medical Services, Ministry of Public Health, Samsen Rd., Theves, Bangkok. OPIC.

ROMANIA Bidders are sought to supply **materials and equipment for the Riul Mare—Retezat hydropower project** being financed by IBRD. Revised dates of tender opening and costs of bidding documents follow: A. steel for tunnel lining, Dec. 15, $50; B. mechanical equipment for dams and secondary intakes, Jan. 12, $100; C. turbines and generators, Jan. 19, $150; D. dam monitoring instruments, Jan. 26, $150; E. power transformers, January (exact date not yet fixed), $100; F. electrical equipment for primary and secondary commutation, Feb. 4, $100; G. automation and remote control equipment, Feb. 9, $100. Bidding documents will be issued two months before date of tender opening. Documents can be obtained from Mrs. Mariana Giosanu, Romenergo, Bulevardul Lacul Tei 1, Bucharest, Telephone 12-13-26, Telex 017-25. Payment for documents should be made to Romenergo's account #4011041-1 opened with Romanian Bank of Foreign Trade.

EGYPT General Organization for Sewerage and Sanitary Drainage is seeking qualified firms for supply and installation of 10 **diesel generators** to be used in sew-

age pumping stations. Bidder selected will be expected to supervise erection of generator plants. Tender documents available for LE 50 pounds (approximately $125) from General Organization for Sewerage and Sanitary Drainage, Foreign Purchase Committee, Sixth Floor, Tahriir Bldg., Tahriir Square, Cairo. Tenders will be accepted only from public sector companies or registered trading representatives. Closing date for submittal of proposals Dec. 15. For additional information contact: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; Phone: 202-377-4441.

Visiting Buyers & Officials

AUSTRALIA—Karl Brunner will be in the United States for about 10 days starting Nov. 25. He wishes to purchase snow-making machinery for a ski resort now under development. For additional information, contact Peter B. Alois of the Foreign Buyer Program, Room 2322; 202-377-3265.

FRANCE—Jean Claude Malouvier and Pierre Liberge of Paris are interested in hearing from U.S. firms supplying the glass industry with **chemical specialties, molding compounds, and small equipment.** For further information contact Theresa E. Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3265.

SWEDEN—Officials of the Swedish Marketing Federation wil visit the United States to meet U.S. **marketing consultants and marketing offices** of U.S. firms with a view to applying U.S. techniques to the marketing of U.S. products in Sweden. The Federation promotes modern marketing techniques and supports market research. Ms. Lamm, Ms. Orner, and Mr. Rietz will visit New York Nov. 26—Dec. 1; Chicago, Dec. 6-8; and San Francisco, Dec. 14-17. American firms interested in meeting this group should contact Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

EGYPT—Fouad A. K. Hamza is visiting the United States to seek American supplier for 15 refrigerated **railroad cars** (bogie vans). Hamza has tender documents and specifications issued by the Egyptian Railways Electrical Engineering Department. Tenderers are invited to submit bids for supply of the 30-ton refrigerator bogie vans, 80-cubic meter capacity, equipped with two independent, identical, self-contained refrigeration units complete with diesel-generator sets. Vans are to be built in accordance to specifications and drawings available from Hamza. Hamza is also seeking agency distribution arrangements to represent American products and firms in Egypt. Although Hamza is willing to consider representing American firms bidding on any of Egypt's economic development projects, he is particularly interested in representing U.S. firms which can provide: 1) **water and sewage systems and equipment;** 2) **accelerated tile drainage systems and equipment,** 3) **grain and vegetable oil storage systems and distribution equipment.** Interested American firms may contact Hamza directly at Riverside Tower Apartment Hotel, 2201 Virginia Ave., NW., Suite 401, Washington, D.C. 20037, phone 202-452-4600, or through John Hardisty, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4523.

SWEDEN—Eric Edborg is in the United States and wishes to meet manufacturers of **leisure clothing for extra large and tall men** for direct import. His firm specializes in clothing for big men, and although small, has a sound credit reputation. For additional information, contact Peter B. Alois, Foreign Buyer Program, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

AUSTRALIA—Gregory J. Morris wishes to meet manufacturers of expanded PVC and polyurethane foam. Morris is Managing Director of a firm that manufactures **gaskets, seals and filters,** and will be in the United States for two weeks starting Nov. 22. Contact Peter Alois, 202-377-3265.

AUSTRALIA—David Wikstrom of Sydney, is planning a visit to the U.S. in February or March 1977. He is interested in **emergency services equipment for ambulance, police and fire department rescue squads** and may be contacted through Theresa E. Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3265.

ISRAEL—Rafael Sirkis will be in the United States for one month starting Nov. 15, and wishes to meet manufacturers in the following fields for possible representation: **radio and TV communication equipment, electronic research and detection apparatus, and scientific optical instrumentation and lenses.** Sirkis will be on both the east and west coasts during his visit. For further information, contact Peter B. Alois, U.S. Department of Commerce, Foreign Buyer Program, Washington, D.C. 20230; 202-377-3265.

AUSTRALIA—Simon Green wishes to contact manufacturers of **pinsonic quilting machines.** He hopes to produce quilting which is 116 inches or wider in one operation without sewing. Although he has not yet established his itinerary for the U.S., he will send a representative to the manufacturer within 6 weeks of making contact. For further information, contact Peter Alois, 202-377-3265.

JAPAN—Akiro Saito of Tokyo wishes to import and distribute **dyestuffs** used in textiles and industrial chemicals. His firm was formed in 1937, and has annual sales of approximately $1,000,000 per year. Contact Peter B. Alois, 202-377-3265.

ECUADOR—Ms. Joyce Ginatta, General Manager of an importer/dealer, wishes to contact American firms for **general builders' supplies.** The firm has a good reputation, and wishes to expand its product lines. Peter Alois, 202-377-3265.

INDIA—N. Krishnan, Chairman and Managing Director of the Cochin Shipyard, will be in New York Nov. 7-12 and is interested in hearing from U.S. suppliers of **shipyard equipment.** For further information and his New York address, call Theresa E. Rettig, 202-377-3265.

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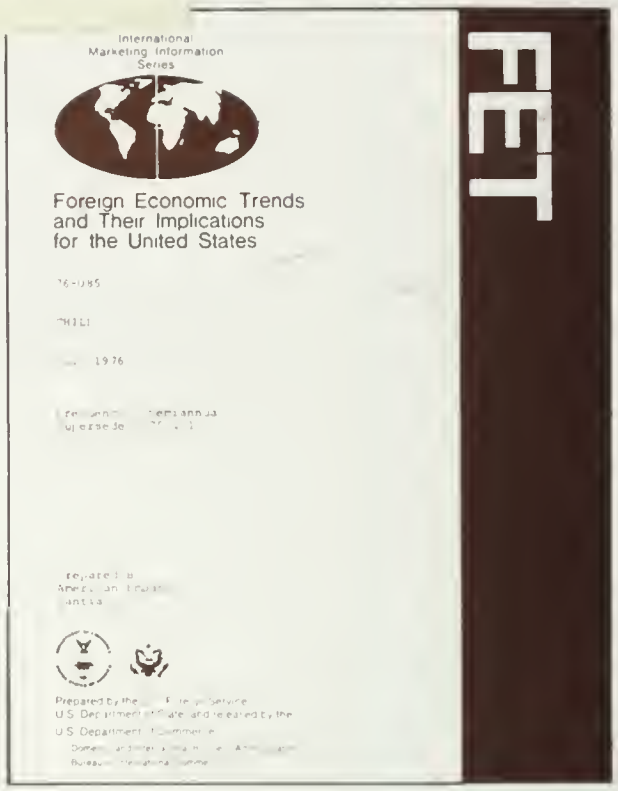

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COMMERCE AMERICA

FORMERLY COMMERCE TODAY

U.S. Department of Commerce / November 22, 1976

Helping New Exporters Over Transport Hurdles

Newsmemo

Modern technology can bring major benefits to health care but also pose problems. Sophisticated equipment is helping doctors diagnose and treat patients more effectively and even cutting costs by eliminating some operations and tests. But over-buying and under-use of expensive items is pushing the rapid rise in health care costs. For example, computerized x-ray scanners that can provide images of body cross-sections range from $400,000 to $550,000 apiece. Reacting to high costs of under-utilized equipment, five states have publicly declared moratoriums on purchase of such scanners and other states are pursuing the same course without public notice.

Clean air costs for one U.S. firm: $600 million. That is what U.S. Steel estimates it will spend over a 10-year period. New air pollution control equipment at Clairton, Pa., represents $155 million of this total. The expenditure estimate is related to a proposed consent decree announced between the company and Pennsylvania state and local air pollution control authorities.

Electronic banking means that a full dossier on an individual's finances is instantly available to outsiders—or does it? American Bankers Assn. spokesman Kenneth Larkin says that the amount of personal information obtainable under the new electronic fund transfer system is not greater than under current check-type arrangements. Computer access to it will, of course, be faster. The ABA believes that competition can help safeguard privacy, contending that if alternative systems are available, banks will strive harder to protect their customers in order to retain their accounts.

Equipment used in electronic fund transfer is already valued at $5 billion. Of this, $1.5 billion is in terminal installations and $3.5 billion in supporting computers. By 1986, according to an Arthur D. Little study, the value of the terminals should quadruple and that of the computers should double. Growth of EFT systems depends, however, largely on state legislation to meet court rulings that EFT terminals are branch banks. Other obstacles are the high cost of terminals and the matter of consumer acceptance.

Trends in sales of imported passenger cars are being watched carefully this fall. A strong September showing by imports—18.5 percent of total U.S. retail sales—surprised many auto market analysts, who were expecting the usual decline in import sales during that month. Import sales for 1976 through September were 15.5 percent of the total U.S. market. Top year for imports was 1975, when they captured 18.4 percent.

Taking sides in the fluorocarbon ban controversy: go-slow advocates want better data, move-ahead proponents seek to push for substitutes. A National Academy of Sciences report lent support to those who see fluorocarbons as damaging the earth's ozone layer. But it also urged a delay in regulation while research in this field continues. Now the Food and Drug Administration has proposed a ban on use of fluorocarbon propellants for aerosol products. The Environmental Protection Agency backs the proposal, believing it will promote development of alternatives, not only as propellants, but as refrigerants and for other uses.

Nevada Says Go Metric. So said hundreds of lapel buttons distributed at this year's Nevada State Fair. And a metric scale from the state Department of Education showed young ladies that they really weighed 62—kilograms, that is. The metric education program is going forward in all parts of the country. Thirty-two states have some kind of activity authorized by their legislatures or state school authorities, and 23 have put up road signs using metric designations. Conversion to metric means, first of all, building public familiarity with meters, liters, grams and degrees Celsius.

Let's tell the world that the U.S. is designing new products that conserve energy. Companies with such products are being invited to get free worldwide publicity about them through a Commerce Department export promotion called the New Product Information Service. The service, which reaches thousands of industry and government customers abroad through newsletters of U.S. Embassies and Consulates, is planning a special energy efficiency edition. Deadline for applications is Dec. 30. Call 202-377-5783 for details.

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COVER: American firms are moving their goods abroad by sea, air, truck and rail with the assistance of a team of professional global transportation specialists experienced in foreign marketing assistance. The story of how they operate begins on page 4.

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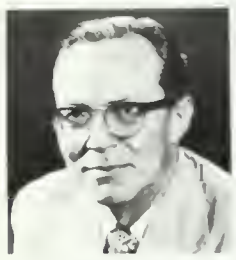
ECONOMIC HIGHLIGHTS

Farm Sector Restrains Rise In Wholesale Prices

This column was prepared by John W. Kendrick, Commerce Chief Economist, in collaboration with staff economist H. Kemble Stokes.



John W. Kendrick

The advance in wholesale prices so far this year has been quite modest by the standards of the early 1970s. In recent months, however, industrial commodity price rises have accelerated, and the overall Wholesale Price Index has increased at a fairly reasonable pace only because of the offsetting declines in prices of farm-related products. In the months ahead, industrial prices may advance at a more moderate rate while recent declines in farm prices are not expected to continue.

During the first ten months of this year, wholesale prices increased by less than three-tenths of one percent per month. Price increases have varied considerably from month to month, with declines early in the year and more significant increases in recent months. Nevertheless, the average monthly change is far below the 1.6 percent average of 1974, and indeed still slightly below the average monthly change in 1975. In fact, in October of this year wholesale prices were only 3½ percent above year earlier levels, the smallest year-over-year increase since November 1971.

Despite this generally favorable perspective, however, the all commodities index of wholesale prices has increased more rapidly in recent months as an accelerating trend of industrial prices has been combined with sharp monthly fluctuations in prices of farm products, processed foods and feeds.

In the first three months of this year prices of farm-related commodities declined by about 1.4 percent per month, as prices of livestock, processed meats, poultry and fish, eggs, and dairy products declined sharply. These declines counterbalanced the modest increases in industrial commodities. Between April and June, livestock prices increased significantly and, aided by continuing increases in grain prices, raised the price index for farm products, processed foods and feeds by 1.4 percent per month. However, since June, prices have again declined by an average of 1.0 percent per month.

Prospects for agricultural prices may change significantly over the next few months, however. Cattle prices have virtually ceased declining and could begin to increase by early 1977 since feedlot placements are now rising more slowly. This reflects a sharp reversal of increasing placements during 1976. Hog prices have declined substantially and they probably will remain flat for at least the next few months since hog production has been particularly strong. Grain prices, after increasing sharply during the first half of 1976, are now declining as a result of good harvests for wheat and corn; prices could fall further, though at a considerably reduced rate.

While agricultural prices may remain quiescent in the near term, their ability to offset price increases on industrial commodities will become more limited.

Industrial prices, after rising by less than 0.3 percent per month during the first half of this year, have increased by over 0.8 percent per month since that time. However, in the months ahead price increases are more likely to moderate than to accelerate.

This impression is derived in part by the non-recurring nature of many of the recent price increases, including prices of fuel, rubber, metals, and transportation equipment, as well as the expectation of moderation in wood products.

Lumber and wood prices rose by more than 3 percent per month from June to October. Early in the year the lumber industry was unable to respond quickly to an upsurge in demand, but supply problems were largely overcome during the second quarter. Continued increases in demand for lumber and wood products rest upon significantly improved housing starts. However, further increases in starts are likely to be more restrained over the next 6 to 12 months.

Fuel prices have been heavily affected by partial decontrol of crude oil and significant adjustments to the prices of natural gas. Oil obtained from stripper wells, about 14 percent of domestic production, has recently been decontrolled and this had an important impact on the October Wholesale Price Index. While this price effect is largely completed, any OPEC price increase would cause further price increases.

The Federal Power Commission authorized an increase in the ceiling price for natural gas discovered since January 1, 1973. Another ruling allows a price increase to offset recent reductions in the depletion allowance, which would otherwise have resulted in a decline in the after-tax rate of return. Most of the impact of these rulings is in the past.

Price increases for rubber and plastics averaged 1.4 percent per month during the last three months in contrast to only slight rises earlier in the year. The recent large increases correspond almost precisely to the settlement of the strike in the rubber industry. Thus, price increases were not related to excess demand pressures and are not likely to be repeated.

Metal price increases, and in particular prices of steel products, affected both the June and August indexes. A more recent attempt to further increase steel prices failed in the face of market conditions, enhancing the near-term outlooks.

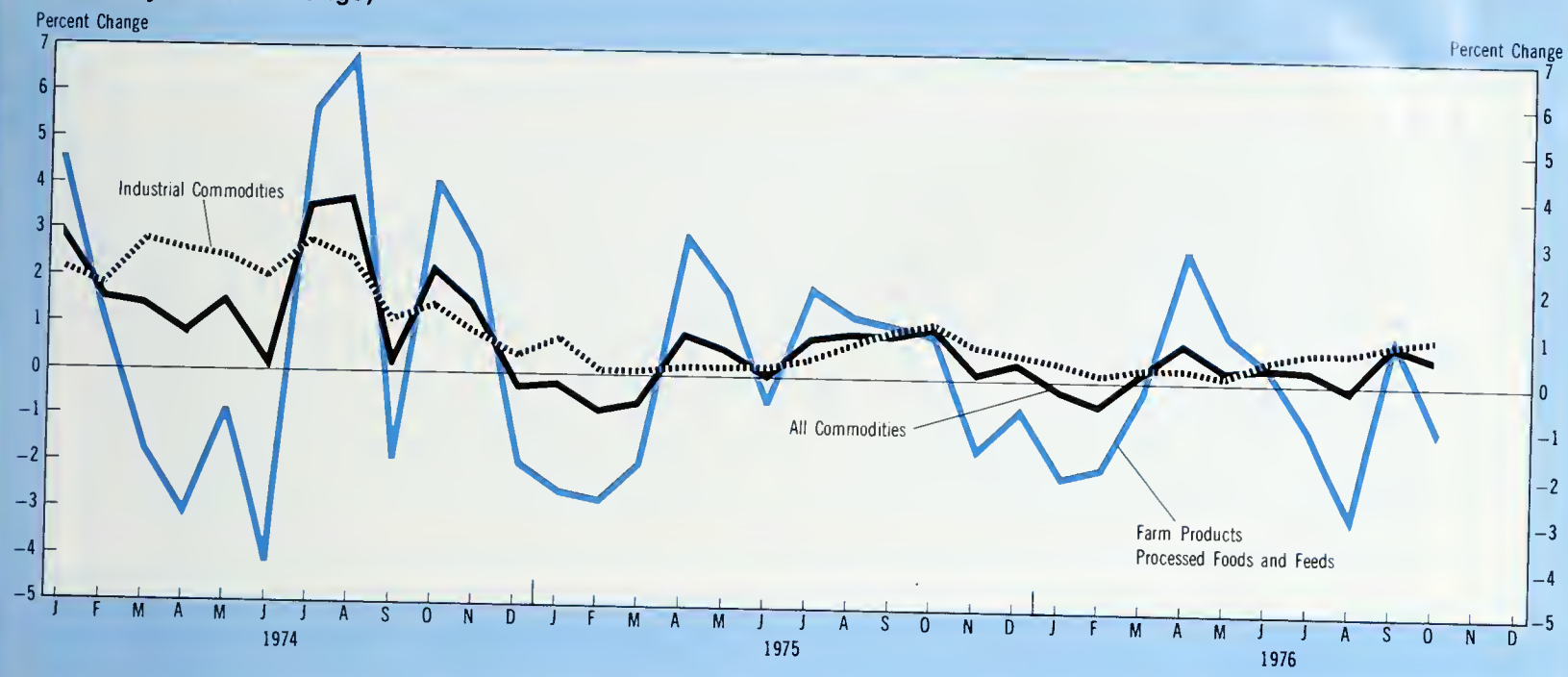
In both September and October machinery and equipment prices increased more rapidly than earlier in the year. Since markets for these products are not yet robust, it is likely that these price increases reflect the pass-through of the previous steel increases and are therefore of an inherently short-term nature.

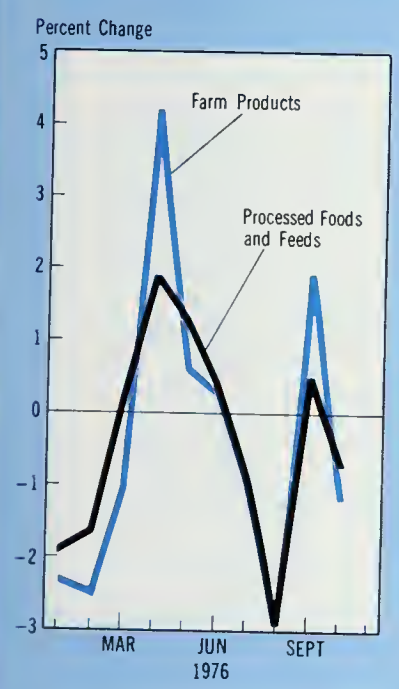
Prices of transportation equipment increased significantly in August, September, and October. In August the price increases reflected increases in prices for railroad equipment; in September for auto parts. The October increase, by far the largest, resulted from price increases on new 1977 model year automobiles. The publicly announced price increase was a little under 6 percent. After removing 1/6 of this increase for quality change, and adjusting for the removal of seasonal influences, passenger car prices increased by 2 percent. Further price increases are likely to be considerably more muted. Imported car prices for the new model year are not likely to affect the transportation equipment index significantly.

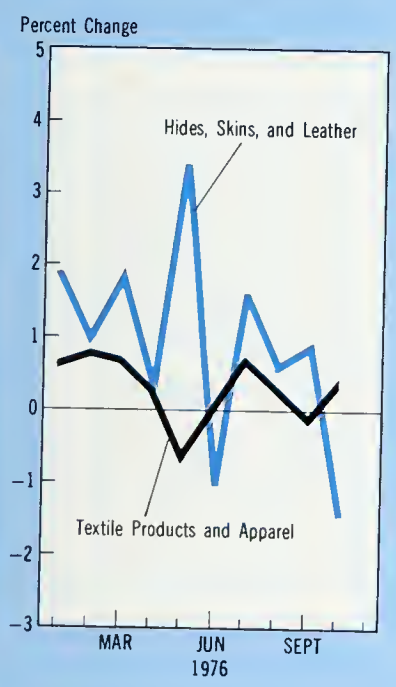
The behavior of wholesale prices has been restrained for this stage of an economic recovery. While agricultural prices are not expected to be the restraining factor that they have been during 1976, there is some promise of moderation in industrial prices if only because some of the larger and essentially one-time increases have been completed.

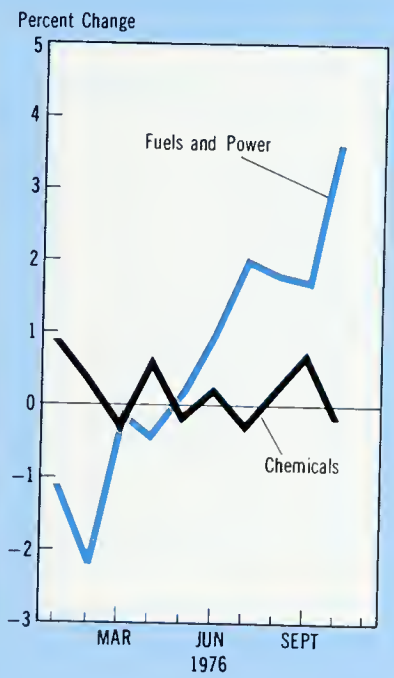
This page replaces Page 3 of the November 22, 1976, issue of *Commerce America* originally printed in error.

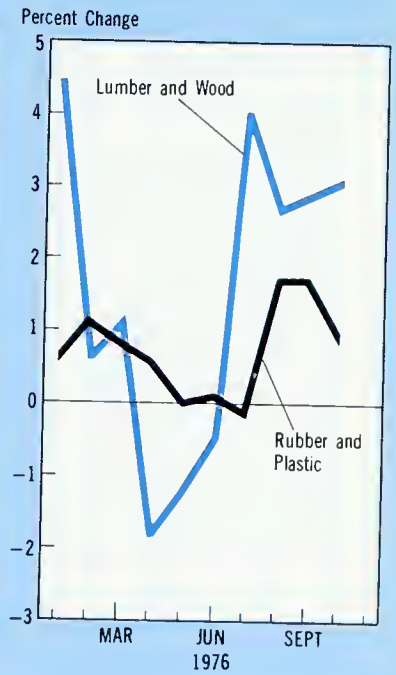
Wholesale Price Indexes
(Monthly Percent Change)

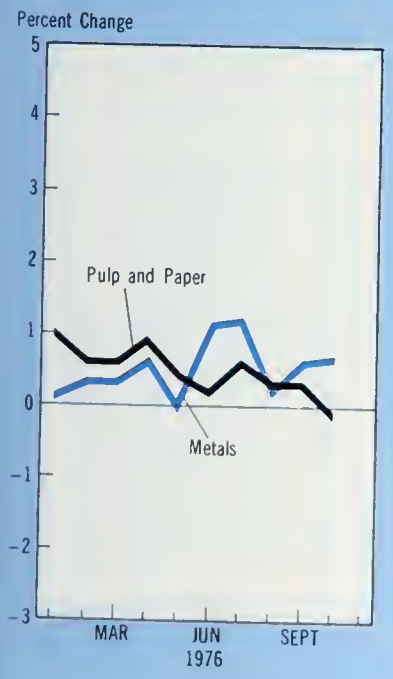


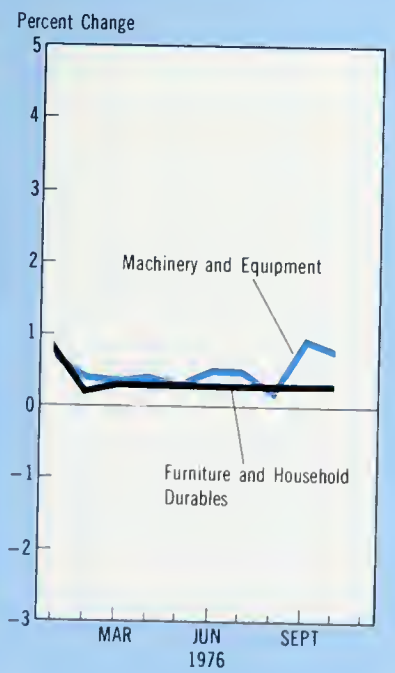


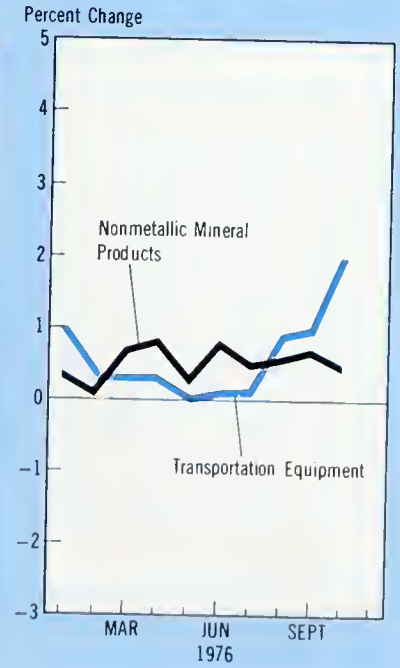


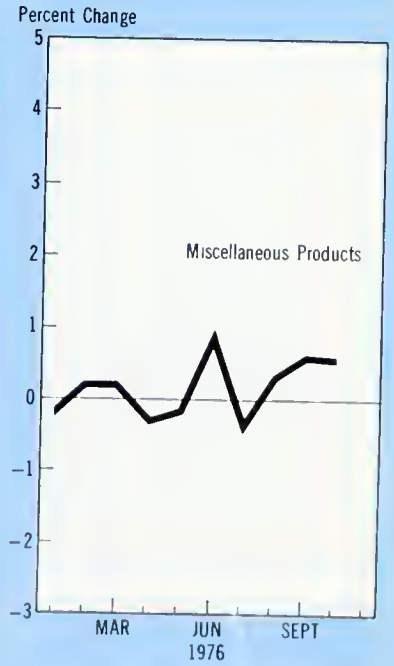












SOURCE: Bureau of Labor Statistics

Helping New Exporters Over Transport Hurdles

New exporters entering Commerce Department trade promotions abroad are looking primarily for experienced foreign marketing assistance. But even before the marketing process begins, they stand to receive important introductions from professionals in a related field—the Department's global transportation specialists.

These professionals, working out of a New York office, oversee the movement of goods by sea, air, truck and rail to 100 trade shows each year in places like Singapore, Sydney, Moscow, Milan, Mexico City, Tehran and Stockholm. Every shipment must meet a firm calendar deadline. Deadline is the apt word, for delays are not merely embarrassing or irksome, but probably fatal. When opening day arrives at each show the exhibitors' goods simply have to be in place. Necessarily, all kinds of delivery problems must be anticipated, met and overcome.

The U.S. company concerned with the shipping process—often watching its goods and equipment head outward from familiar American ground for the first time—is kept fully involved. It gets what amounts to a quick, concentrated course in worldwide transportation matters.

Solid information is the key to achievement on the ever-changing transportation scene. The New York exhibits transportation office is at the hub of a worldwide network in which telex and telephone messages flow in hourly, including these recent samples received from Commerce installations abroad:

"We are informed by our forwarders that [an air freight firm] has heavy backlog in Paris for Iran. Apparently only carrier to give rebates, so gets much business. Indications here are that local staff not very interested in detail or follow-through, and showing little control. Suggest you recommend to all exhibitors not to use them for shipments to Tehran."

"Ship all air cargo destined for Moscow direct to Duesseldorf or other West European city for trucking to Moscow. Overall costs including clearances would be more expensive by sending air freight shipments direct to Moscow airport."

"Shipping through Khorramshahr is impossible. Some shippers who would like business insist they can guarantee shipment through other southern ports, but our experience with guarantees leaves much to be desired. Situation is difficult and requires long, long lead time for assurance of delivery."

"Airport customs warehouse facilities exceptionally strained with situation not improving. Possibility of cases being lost or temporarily misplaced now on verge of becoming probability. Please advise all exhibitors that air shipment must repeat must be made at least 30 days prior to opening."

"On your query why does trucking from Le Havre to Paris, 130 miles, cost same as from De Gaulle airport to nearby Paris: Freight forwarder has a great deal of cargo coming from Le Havre All freight is consolidated, in regular traffic, which reduces costs. When a shipment arrives at airport for an exhibition, a special truck is dispatched. There is no volume, as with shipments from Le Havre. Therefore it is relatively more expensive to bring a shipment from an airport to the Trade Center."

"Everything coming in on one airway bill is weighed. Everything going out is weighed . . . and if the weight going out is different from the weight coming in due to giveaways such as printed matter, it is held up even in those cases where customs duties were already paid on the giveaways."

In sharing these messages with exhibiting companies, the Commerce exhibits transportation specialists supply information that can have long-range value. The immediate application, of course, is to the staging of a particular exhibition. But tied to other details, it can help a U.S. firm build significant expertise into its shipping procedures and avoid costly mistakes, delays and diversions as it ventures further into exporting.

The Commerce shipping office in New York is under the direction of Sam Bevans, who has had extensive experience in receiving exhibition shipments abroad. He has served as an exhibition manager and the deputy director of a U.S. Trade Center. His staff of four shipping specialists handles about 3,000 sets of shipping instructions for U.S. firms each year.

Speaking of the impact of this staff, Bevans declared: "The names are Santorelli, Bertolotti, Rubinstein and DeBenedetto, household words to hundreds of U.S. companies that ship equipment destined for exhibitions sponsored by the U.S. Department of Commerce at major international trade fairs or the Department's trade centers. In shipping to an exhibition, a little more is required than the service provided by a freight forwarder, and this personalized help is given by these specialists."

From the time initial contact is made with the exhibitor, whether he is on the East or West Coast, to the time the exhibitor's material is delivered to the appropriate pier or airport in the United States, one of the four transportation specialists maintains complete control of the material, assuring that it is marked and consigned properly in accordance with Commerce's instructions and delivered to the appropriate carrier prior to a deadline date determined by the specialist.

The exhibitor is guided through each step of the shipping process: packing, documentation requirements, marking, forwarding, delivery, adherence to special requirements imposed by the foreign country for importing the materials, etc. Although all shipments are arranged by one of Commerce's official freight forwarders located on the East Coast, Gulf Coast, or West Coast, it is one of these Commerce transportation specialists who guides the exhibitor in moving his materials.

Each transportation specialist is an expert on how to ship to a particular region. At his disposal is information received from the 12 permanent trade center installations and their overseas freight forwarders, from foreign posts, and locally from foreign consulates in the New York area, Chambers of Commerce, other government units such as Maritime Administration, U.S. despatch agencies, freight forwarders, direct contacts with top officials of both steamship companies and airlines, and other groups such as traffic associations and clubs. He is also kept aware of political problems, and possible port strikes overseas which could affect shipping, and congested ports to avoid. He counsels routing of shipments so the exhibitor can obtain lowest costs for inland transportation overseas.

TRANSPORT SPECIALISTS AT WORK—Officials of the Commerce Department and the Port Authority of New York and New Jersey check an export shipment in New York harbor with a shipping industry official.

A company must budget accurately to avoid unexpected charges which could spiral once the materials arrive overseas and are trucked to the exhibition. Taxes, customs duties, special tariffs, transport costs from an overseas port of entry to final destination, and freight forwarder charges can total up to more than the value of one's equipment or more than the company paid for participation in an exhibition. The transportation specialist has at his disposal sufficient information to advise the exhibitor, prior to shipment, what these charges will be. Trucking in Eastern Europe after arrival at an overseas port, for example, could cost twice as much as the actual ocean charges. This information can be relayed to the company prior to shipment. Certain governments in foreign countries could impose extremely high taxes, duties, and other charges by a freight forwarder could be burdensome to some U.S. companies if they are not made aware of this information.

In trade exhibitions, meeting a shipment deadline is a must.

Bevans commented that smoothly functioning transportation arrangements make for good relationships between exhibitors and the exhibition officials: "When the exhibitor arrives in the foreign country to man his exhibit booth, the materials are already unpacked and installed in accordance with his instructions or those of the fair designer. When the exhibition is over, he supervises the packing and advises the fair manager of disposition details. If his equipment is not sold and he wants it returned to the States, the Commerce Department arranges for return shipment of the goods. Through the Exhibits Transportation office, the equipment is cleared through customs and returned to the factory."

Bevans also noted that the expertise of his office is available to any U.S. company exhibiting overseas in a Commerce-sponsored exhibition: "Since we are a service unit of the Department of Commerce, any U.S. company seeking advice on shipping matters in connection with such exhibitions can call any of the specialists on 212-264-8990, or reach them at Room 3719, 26 Federal Plaza, New York 10007." ☆

U.S. MERCHANT MARINE

Subsidies for ship construction are one of the American taxpayer's best long-term investments, producing an estimated $3 in private spending for every dollar of government funding. For the years 1976 and 1977, for example, this represents some $1.5 billion worth of new ships for a government expenditure of about $490 million. By the time the money has worked its way through the economy, the impact upon the GNP could be expected to reach over $10 billion. It is estimated that more than $1 billion, or twice the amount of the subsidy, would be paid in taxes. In addition, the resultant impact on employment would amount to about 400,000 jobs.

It hardly seems necessary to justify such a boon to the economy, but there is general misunderstanding about the need for and results of subsidies in the maritime industry.

Although the United States generates the largest share of the world's seaborne trade in both value and tonnage, its flag ships for years have carried only a small percentage of its cargoes.

Following the passage of the Merchant Marine Act of 1970, the most recent government measure to assist the maritime industry, U.S.-flag ships began increasing their share of U.S. foreign trade at competitive world prices. By the end of 1974, cargoes carried by U.S.-flag ships had increased to 41 million tons, a gain of 68 percent over the 24.4 million tons in 1971. Total tonnage carried by foreign-flag ships increased only 36 percent.

Cargo tonnages carried by U.S.-flag ships in 1974 were the largest, by far, for any year since 1957. Prior to that year, U.S.-flag ships were engaged in carrying large quantities of aid and relief cargoes in the aftermath of World War II, the Korean conflict, the Middle East War and other political and economic disruptions.

Why was governmental action needed to spark business for U.S.-flag ships? Why were U.S. importers and exporters not automatically turning to U.S.-flag ships? The reasons are complex:

- The cost of operating U.S.-flag ships is greater than foreign ones, due to higher wages, insurance, maintenance and repair costs;
- The cost of building vessels at U.S. shipyards is greater than foreign costs, due to higher U.S. wages and materials costs. Additionally, there are more than a dozen government statutes or regulations to which the shipbuilder must conform. These higher standards were designed to make safer ships, with less danger for crews and cargoes, and to minimize pollution of the marine environment;
- Unstable labor-management relations in the U.S. maritime industry had led to disruptive strikes;
- Shipbuilding was declining. As cargoes dwindled, so did the market for new ships;

NEW SERIES—The LNG-1, one of the first two liquefied natural gas carriers launched in the United States, is the core of what is expected to become a sizable fleet.

RIGHT ON COURSE

• Finally, as U.S.-flag ships decreased, so did the availability of same for use in the event of a national emergency.

It was against this background that the Merchant Marine Act of 1970 was passed.

Government assistance in support of the U.S. maritime industries is nothing new—President George Washington was the first to formulate it. Twenty-five other presidents supported it in one way or another. Congress gave it sanction.

One of the first acts of the first Congress of the United States dealt with the promotion of industry, trade and shipping. Understandably, government and public attention to the status of the U.S. merchant marine were greater during periods of international tension; they lessened when peace was prevalent. Wars were always the motivation for a strong American merchant marine and shipbuilding industry, while periods of peace inhibited their growth.

Between 1789 and 1828, more than 50 additional tatutes and commercial treaties were approved o protect and promote American shipping. Since hat time there have been numerous other laws o improve the U.S. merchant marine.

The most recent of these, the Merchant Marine ct of 1970, amended the Merchant Marine Act f 1936. The 1936 act had laid the groundwork r a modern merchant marine, but was not altoether successful in encouraging construction of a lanced fleet of cargo liners, bulk carriers and nkers in adequate numbers to compete for a fair are, much less a substantial share, of the nation's ormous tonnage of oceangoing foreign trade. bout 60 percent of all the freighters, bulk carers and tankers in the privately-owned U.S. erchant marine in 1969 was, on average, more an 20 years old. In that year, U.S.-flag ships rried the smallest share of the country's total port and import trade in this century . . . 4.5 rcent.

Although the 1970 act contained numerous proions, it gave primary considerations to ways and ans for:

• Developing the U.S. shipbuilding industry by ablishing a goal for the construction of 300 rchant ships over a 10-year period (this was er altered);

• Encouraging procedures to reduce U.S. shilding prices;

• Deferring taxes on earnings of U.S. shipping panies in foreign, Great Lakes and noncontigus trades if placed in a capital construction fund to replace, rebuild or add new ships;

• Establishing government construction support goals with a decreasing ceiling on the differential between U.S. and foreign building costs.

• Operating and construction subsidies on certain bulk dry and liquid carrier operations and the method of computing subsidies.

With the passage of the act, an aggressive series of programs was initiated under the direction of the Maritime Administration, a Department of Commerce agency. Maritime set about designing a shipbuilding program that would produce innovative, competitive ships for all segments of the merchant marine; and developing a highly motivated marketing program that would produce cargoes on an increasing basis in order to sustain the fleet.

In September 1971, the National Maritime Council (NMC) was established, consisting of chief executives of the shipbuilding and shipping industries, the maritime unions and the Maritime Administration. Its purpose is to develop a strong, competitive U.S.-flag merchant marine which will afford American exporters and importers the best service possible to meet their requirements. To this end, highly experienced traffic executives of export and import companies also serve as advisors to the NMC on matters affecting shippers.

The Council provides a forum where the highly individualistic shipping and shipbuilding companies and labor unions can speak with one another face-to-face about the problems of the U.S. merchant marine and how to overcome them. Unlike most others, the maritime industry has so many diverse objectives that at times each segment has sought its own ends with little regard to the needs of the customer, the American shipper.

The Council has grown from an 11-man organizational committee to the present 34-member elected Board of Governors. Membership on the board consists of the chief executive officers of all principal U.S.-flag shipping lines, the major maritime seagoing and shoreside labor unions, the

. . . highly experienced traffic executives of export and import companies also serve as advisors to the NMC . . .

This article is excerpted from the book *The United States Merchant Marine A National Asset* by Irwin M. Heine, published by the National Martime Council. For further information, contact the Council at P.O. Box 7345, Washington, D.C. 20044.

The NMC strives to win shipper preference for U.S.-flag service when it is equal or superior to foreign-flag service.

largest shipbuilding companies and the Maritime Administration.

Despite the constantly improving sailing schedules offered by U.S.-flag lines and the expanded marketing services rendered by the Maritime Administration, past uncertainties regarding shipping services have left a residue of caution among some American shippers. To overcome this hesitancy and to assist shippers in other transportation matters, the NMC is developing programs based upon fulfilling the shippers' transportation needs.

The National Maritime Council does not ask shippers to patronize a U.S.-flag vessel if its service is inferior or if its sailing schedules are inadequate for the shipper's needs. Nor does it ask the shipper to ship American if it means he will have to pay a higher freight rate than is legitimately offered by foreign lines. However, it does strive to win shipper preference for U.S.-flag service when it is equal or superior to foreign-flag service.

Among the NMC programs are four regional groups, which hold workshops and discussions around the country to bring together importers and exporters with representatives of shipping and shipbuilding companies, labor and government; task force units that make direct contact with individual key exporters and importers; and shipper advisors, corporate traffic officials acquainted with overseas shipping problems who provide the NMC with guidance on distribution and transportation matters.

The NMC has achieved an unusual degree of unity and cooperation among all segments of the U.S. maritime industry. It cites as the best manifestation of this the improved relationship between management and labor, and the government's relationship with those two segments and with the shipbuilding industry. All have combined to resolve the numerous problems that have plagued the industry for years.

The U.S. shipbuilding industry is principally comprised of some 150 private shipyards of various sizes located in the Atlantic, Gulf, Pacific and Great Lakes regions. There are, however, about 25 major shipbuilding and repair yards capable of building oceangoing merchant and naval vessels. The 151,000 personnel employed by the commercial shipbuilding industry throughout the country make a contribution to the economy far in excess of their numbers. In many instances, shipyards create jobs for people, including minorities, who would otherwise remain unemployed.

Although total U.S. foreign trade amounts to less than 15 percent of the country's GNP, it is absolutely vital to the United States in maintaining its industrial and defense posture in the world. In 1973, an estimated 47,600 jobs were created or supported in the United States for every billion dollars of exports.

U.S.-flag ships offer scheduled shipping services on 49 trade routes to and from the United States which cover virtually every area of the world. To the extent that U.S.-flag ships operate on these trade routes, they increase international shipping competition, which benefits U.S. shippers. In short, they act as a stabilizing factor on freight rates and in insuring continuity of shipping services.

The struggle for foreign markets is becoming more intense, especially with the growing industrialization of many of the less-developed countries. And as this trend grows, many governments are granting increasing support to their maritime industries as an integral part of their international economic and political policies. Under today's conditions, the American merchant marine provides a safeguard against any foreign shipping discrimination that would hamper U.S. shippers' efforts to compete in world trade.

The term "national interest" has security, economic and political connotations as well as a philosophical implication that is concerned with the public welfare and safety or patriotism. Practically all of the major maritime nations stress the importance of their countries' welfare and safety by urging the use of national-flag ships in overseas trade to the greatest extent possible.

It would be hazardous to the national interest for the United States to place complete reliance upon the merchant fleets of other countries, including those under effective U.S. control, in discharging their international economic commitments. The latter are not considered an effective substitute for U.S.-flag shipping in accommodating defense needs.

In regard to the need for subsidies, many countries offer a wide variety of social, economic and political assistance to their merchant marines. A recent Maritime Administration study notes that there are at least 11 types of direct and indirect subsidies and five social, economic and political types of assistance that nations grant in support of their maritime industries. The study also points out that, practically without exception, maritime nations regardless of the size of their fleets offer some form of direct or indirect assistance to their shipping and/or shipbuilding industries.

The United States has two forms of direct financial aid: Construction Differential Subsidy, which is the difference in costs between having a ship built in a foreign shipyard and having the same ship constructed in a U.S. shipyard, and Operating Differential Subsidy, which seeks to equalize the disparity in operating costs between American ships and their foreign competitors with respect to wages, insurance, and maintenance and repairs not compensated by insurance.

Prior to the 1970 act, Construction Differential Subsidy ranged as high as 55 percent. The gap between U.S. and foreign shipbuilding costs in the past few years, however, is narrowing. Instead of running as high as four-to-one a few years ago, wage costs on certain orders have dropped to about two-to-one.

Revaluations of foreign currencies, changing patterns of inflation in foreign countries, increased wage demands by foreign shipyard workers, and

An operating subsidy does not guarantee the recipient company a profit.

SPREADING THE WORD—Left, winner of the 1976 National Maritime Poster Contest. Right, National Maritime Council shipper advisors meet with U.S.-flag carrier executives in San Francisco for a discussion on improving and expanding U.S.-flag shipping services.

changes in shipyard worker productivity relationships are important factors in narrowing the gap between U.S. and foreign shipbuilding costs.

Recently, tanker orders have been placed with a construction subsidy of 33 percent; liquefied natural gas carriers are being built with a subsidy of 16.5 percent. At no time in the past 40 years has the Construction Differential Subsidy reached so low a level. As the Commission on American shipbuilding has noted, where the U.S. shipbuilding industry is given the opportunity to build ships in series and has an ongoing order book to insure stability, ". . . it is fully capable of equaling the production efficiency in any foreign shipbuilding industry for the construction of similar ships."

At the beginning of 1975, American shipyards as a group had the largest order book for merchant ships, naval vessels, and specialized craft in any peacetime period. The following ships were under construction or on order: 63 naval vessels, 95 merchant ships, and 38 specialized craft (rigs, platforms, drill ships and other oil exploration craft), with a total estimated value of $11.9 billion.

Not all U.S. privately-owned merchant ships receive Operating Differential Subsidies. Of the 176 companies which own U.S.-flag ships, 13 operating companies receive the subsidy for all or part of their ships. In order to receive the subsidies the companies must assume rigid long-term contract obligations, including ship replacement programs that will amount to hundreds of millions of dollars. They must operate under strict operating limitations as to trade routes and services, and number of scheduled sailings, and place part of their earnings in capital reserves for vessel replacement.

An operating subsidy does not guarantee the recipient company a profit. Rather, its purpose is to permit the American operator to achieve parity in wages, maintenance and repair, protection and indemnity, and hull and machinery insurance with competing foreign-flag ships operating in the same trade or service. Prior to the 1970 Act the ships eligible for operating subsidy were extremely limited.

If the U.S. shipbuilding industry is to contribute to the national economic well-being and security, it requires a large continuing flow of orders for all types of vessels. Aging, less productive merchant and special-type ships and craft must be replaced on an orderly basis so they can compete effectively in U.S. foreign trade.

The new five-year forecast of budget outlays holds promise of alleviating the uncertainty of funding for Maritime Administration and Navy shipping and shipbuilding expenditures. Such forecasts could enable the maritime industries to engage in advance planning and maintain necessary levels of manpower.

The Merchant Marine Act of 1970 gave recognition to the correlation that must exist between trade expansion and incentives to cargo carriage by U.S.-flag ships. It enunciated a national policy that adequacy of shipping and shipbuilding serves the national interest. It gave momentum to the construction of a variety of ships that heretofore were the province of foreign shipbuilders.

Where there had been no shipyard capacity for liquefied natural gas carriers, U.S. shipyards now have orders for 16 of 125-130,000 cubic meters, the largest sizes on order in any of the world's shipyards, at subsidy rates as low as 16.5 percent. Four others of the same size receive government mortgage insurance. Very large and ultra large crude carrier tankers (those over 200,000 and 300,000 deadweight tons, respectively), for which shipyard capacity was not available three years ago, are on order and under construction.

As a result, capital investment has increased enormously to expand the capacity and capability of U.S. shipyards to undertake the construction of not only all types of merchant ships but also naval vessels and the rigs used in off-shore exploration and production of oil and gas.

By strengthening its maritime industry, the United States is assuring its exporters and importers of consistent, economical transport for their goods, and is guaranteeing that an up-to-date merchant fleet is available to serve the country in the event of international crisis.

Energy Digest

IMPORTERS, PLEASE NOTE . . . The Federal Energy Administration has issued a new summary of its import regulations entitled, "A Compliance Guide for Importers of Petroleum." This booklet explains in layman's language the regulation affecting importers of petroleum, procedures to be followed in its importation, and the assistance available from FEA. This is the third in a series of five FEA guides explaining the application of its pricing regulations. Two more will be published shortly on the pricing of crude oil and natural gas liquid processing. Earlier guides covered retail pricing of propane and retail gasoline pricing. Copies are available from FEA regional offices.

SPEEDING UP COMMERCIALIZATION . . . Federal researchers hope to speed up commercialization of the Solvent Refined Coal (SRC) liquefaction process by combining the experimental data derived from two pilot plants now in operation in Alabama and Washington. The SRC process involves combining a slurry of coal and process-derived solvent with hydrogen added under pressure. No catalyst is added to bring about liquefaction. The reactor effluent is filtered to remove ash and unreacted coal, and results in a solid, environmentally acceptable fuel. The Energy Research and Development Administration (ERDA) has awarded two contracts to Southern Company Services of Birmingham, Alabama, to provide additional data for design of commercial SRC plants at a date earlier than originally planned. "The SRC process is our most advanced liquefaction process with respect to scale and operability," said ERDA's Dr. Philip C. White. "It provides an attractive route for conversion of high-sulfur coal to an environmentally acceptable substitute for coal as a boiler fuel."

EVERYTHING GETS USED . . . U.S. industry may obtain a large part of its future aluminum requirements from coal wastes—with the help of a new process under study at ERDA's Ames, Iowa, laboratory. The Ames process, which uses chlorine gas at high temperatures to extract aluminum from coal wastes, could reduce U.S. dependence on foreign bauxite ore for its aluminum needs. With increasing nationwide energy demand, use of coal for power production may double by 1980. This would increase the amount of fly ash produced to 80 million tons per year. Currently only 20 percent of this material is being used, most of it by the construction industry. The Ames scientists expect to develop processes that would convert all of the fly ash into materials of commercial value, including iron pellets, aluminum chloride and sulfur. Complete recovery of the aluminum contained in fly ash would provide this country with an amount equal to that now being extracted from imported bauxite. Furthermore, the Ames process uses only 70 percent as much electrical energy as the recovery of aluminum from bauxite requires.

BUILDING CONTROL BONANZA . . . High fuel oil costs, aggravated by increasing demand and diminishing domestic supply, have created a bonanza for the building control system industry, according to Frost & Sullivan, a New York-based market research organization. Forecasting the industry's anticipated growth for the next ten years. F & S predicts overall volume rising to $775-million annually by 1985, from $200-million in 1974. In its new 120-page "Building Controls Systems" study, F & S also reports on all aspects of power management and building automation systems in terms of product utility, energy-management benefits, market growth and profitability.

BRAKING ENERGY USAGE . . . The nation's 30,000 automobile dealers will be the focus of an energy cost reduction program jointly sponsored by FEA and the National Automobile Dealers Assn. (NADA). Auto dealers use substantial amounts of energy, especially in their repair facilities and for lighting. The study, one of seven being undertaken of different types of small businesses, will begin with detailed on-site energy audits and anlyses of selected automobile dealers. Results of these studies will be introduced at NADA's national convention in January and incorporated into energy cost reduction guides to be disseminated to its membership. The Association also plans to hold energy cost reduction worshops for its membership throughout the country.

COAL OPTION REQUIRED . . . Coal-burning capability must be incorporated in the construction of 48 electric utility powerplants in 22 states under terms of orders announced by the Federal Energy Administration. The plants will have an estimated generating capacity of nearly 29,000 megawatts while using 84 million tons of coal per year. This amounts to 300 million barrels of oil. All 48 plants involved in the orders had planned to build with coal-burning capability, but the orders will preclude future back-sliding to oil.

Smoke Detector Danger From Radiation: Minimal

EXPOSURE FROM IONIZATION DETECTORS IS FAR BELOW LEVEL A PERSON RECEIVES FROM THE SUN EACH DAY

If you've been postponing the purchase of an ionization smoke detector because of the possible radiation danger, you can start shopping!

The National Fire Prevention & Control Administration and the National Bureau of Standards, both agencies of the U.S. Department of Commerce, support the Nuclear Regulatory Commission's determination that radiation from ionization smoke detectors represents a negligible exposure level.

According to the Nuclear Regulatory Commission (NRC), radiation exposure from the ionization detector is far below the normal radiation a person receives each day from the sun. The NRC cites a number of additional facts as evidence of the safety of smoke detectors. Among them are:

- Stand within ten inches of an ionization detector for eight hours a day, every day of the year, would only result in an annual radiation exposure of less than 0.5 millirems. For comparison purposes, normal background radiation exposure from natural sources is approximately 100 times greater per year.
- A person flying round-trip across the United States receives about five millirems because of the increased radiation at high altitudes. This is ten times greater than the exposure received by holding the detector next to the body eight hours a day for an entire year.

Consumer's Union, an independent testing laboratory, checked the surface of each assembled ionization smoke detector unit in a test sample with a Geiger counter and could detect nothing beyond ordinary background radiation.

The Nuclear Regulatory Commission also conducted studies of the potential dispersal of radioactive material from a fire in a warehouse where hundreds of detectors were stored. The studies show that the potential dispersal in the fire situation would be negligible and would present no radiation hazard to firefighters or cleanup crews.

The NRC held that the regulatory requirements dealing with the design, use and disposal of smoke detectors containing small quantities of radioactive material are adequate for public health and safety. Further, before a license is granted for production and sale of a detector containing a radioactive source, NRC makes a detailed safety evaluation of both the detector design and the manufacturing process.

While the risk of radiation from a smoke detector is negligible, the risks of failing to purchase a detector, or of removing one already installed, are very real. Of the 12,000 persons who die from smoke and fire each year, and of the 300,000 persons who are seriously injured, the great majority fall victims at home at night. Smoke overcomes them before they can awaken and escape. Where people are not protected by smoke detectors, the likelihood of fire-deaths and injuries is increased.

According to Howard D. Tipton, Administrator of the National Fire Prevention and Control Administration, "The home smoke detector is the most significant single technological weapon our nation has to reduce fire deaths and destruction. But smoke detectors are only one part of a home fire safety plan. The detector must be installed and maintained properly, but even more important, families must plan and practice a home escape plan. If awakened at night by the smoke detector's alarm, people may be groggy and confused. But if they have planned and practiced an escape plan, they may be more able to leave the home quickly and safely."

New Tax Act Contains Benefits For Fishermen

The Tax Reform Act of 1976 contains several favorable changes affecting the tax status of U.S. fishermen. Commerce's National Oceanic and Atmospheric Administration reports that the Act increased the benefits available to users of the Capital Construction Fund (CCF) tax-deferral program and increases the number of fishermen eligible to use the program.

The CCF program, administered by NOAA's National Marine Fisheries Service, enables fishermen to construct, reconstruct, or, in some cases, acquire fishing vessels with before-tax dollars by allowing them to defer payment of federal taxes on income from the operation of their vessels.

These federal taxes, when deferred and used to help pay for a qualified vessel project, amount to an interest-free loan from the government.

Previously, fishermen were not allowed to claim investment tax credit on that portion of a vessel's cost paid for under the CCF program. The Act provides, however, that a 5 percent investment tax credit may not be claimed even on the portion of a vessel's cost paid for under the CCF program (the regular 10 percent investment tax credit is still available for the remainder of a vessel's cost). This change applies to vessels placed in service during taxable years after Dec. 31, 1975.

The Act also extended CCF eligibility to all fishing vessels two net tons or more. The previous minimum had been five tons.

Under the Act, operators of fishing boats with fewer than ten crewmen no longer have to withhold taxes from crew pay, or make Social Security contributions, if the pay consists only of a share of the catch. Until now, crewmen on fishing boats were treated as regular employees rather than as self-employed, regardless of how they were paid.

Another section of the Act clarifies the status of certain fishermen's organizations which may now qualify to receive the lower postal rates enjoyed by tax-exempt agricultural organizations.

For further information, call or write the nearest NMFS Regional Financial Assistance Division Office.

U.S. HOUSING COSTS CONTINUE TO OUTSTRIP OCCUPANTS' INCOME RISE

The costs of housing have been rising much faster than people's ability to pay them during the first half of this decade.

Continuing the upward spiral of previous years, the median value of owner-occupied, single-family homes rose by 59 percent, from $17,100 to $27,200, between 1970 and October 1974, according to the Annual Housing Survey for 1974 conducted by Commerce's Bureau of the Census. Median income for homeowners rose by only 32 percent during this same period, from $9,700 to $12,800.

Median monthly gross rent (including utilities) increased from $108 to $143 (32 percent) from 1970 to 1974, while the median income of renters went up from $6,300 to $7,700 annually (22 percent), according to the report.

The report also showed that the value of owner-occupied homes in 1974 was about twice the income of their owners. This ratio varied considerably, however, according to income level.

For example, the value of homes in the low income group (owners with incomes of less than $5,000) was four times or more than their annual income; many of these owners were elderly. In the high income group (owners with annual income of $25,000 or more, however, the value of homes was less than 1.5 times median income.

Renters generally paid about 22 percent of their annual income for gross rent. Households with incomes under $5,000 spent 35 percent or more of their incomes on rent in 1974. Households with incomes of more than $25,000 spent less than 10 percent of their incomes on rent.

For owner-occupied homes valued at less than $10,000 (about 8 percent of the total owner units), the report shows that about 73 percent were built prior to 1950. One-third of these homes have air-conditioning, while 13 percent lacked complete plumbing facilities. For units valued at $35,000 or more (about 31 percent of the total), 23 percent were built before 1950, 63 percent had air-conditioning, and less than 1 percent lacked complete plumbing. The median income of households in lower-valued homes was $5,500 in 1974, compared to $20,300 in homes valued at $35,000 or more.

For housing units renting for less than $70 a month (about 11 percent of the total renter units), 67 percent were built prior to 1950, 17 percent had air-conditioning, and 26 percent lacked complete plumbing facilities. However, of the units renting for $200 a month or more (about 19 percent of the total rental units), 29 percent were built prior to 1950, 68 percent had air-conditioning, and less than 1 percent lacked complete plumbing. The median income of low rent households was less than $3,000 in 1974 compared to $13,400 for units renting for $200 or more.

In addition to presenting detailed cross-classification of housing characteristics by income, value, and gross rent for the nation as a whole, the report has similar data on blacks and the Spanish-origin population.

Copies of the report, Part C, *Financial Characteristics of the Housing Inventory for the United States and Regions: 1974*, Series H-150-74, are available for $3.75 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce District Offices in major cities.

Meeting Seeks Views On Coastal Management

A public meeting is scheduled for November 29 in Seattle to allow the public to comment on the country's first and only approved coastal management program. Officials of the Office of Coastal Zone Management at Commerce's National Oceanic and Atmospheric Administration and from the Washington State Department of Ecology will attend the all-day meeting for the specific purpose of listening to public comments.

Washington's program is a comprehensive statement of policies, goals, and standards for guiding public and private uses of the lands and waters in the coastal zone. In June, NOAA awarded Washington $2 million in program implementation funds, which the state supplemented with $1 million in matching funds.

Persons wishing to speak at the meeting should contact D. Rodney Mack, Department of Ecology, Olympia, Wash. 98504 (206-753-6879). Information about the Washington program is available from this address.

Book Aids Firms Considering Transporting Own Goods

Transportation plays such a major role in company operations that it is a continuing duty of management to examine its costs with an eye toward reducing them. A new publication, *Managing Your Private Trucking Operation*, by Thomas R. Henke, will aid a company in deciding whether to operate its own fleet.

Henke's book covers such subjects as simulation studies, drivers, safety regulations, lease versus buy, equipment, maintenance, dispatching, communications, taxes, legal considerations and many others.

The paperbound book, priced at $7.00, may be ordered from The Traffic Service Corp., 815 Washington Bldg., Washington, D.C. 20005.

MINORITY FIRMS GET $900,000 BOOST ON ROAD TO SELF-SUFFICIENCY

More than $900,000 in federal funds will help a Philadelphia organization implement a new technique in encouraging minority firms—the establishment of local cooperatives aimed at providing capital and training for minority business.

The funds, from Commerce's Office of Minority Business Enterprise, will be used by Opportunities Industrialization Centers of America (OIC) to form Community Investment Cooperatives (CICs) in eight cities. These units will serve as vehicles through which community members can invest in profit-making companies which provide "seed money" for local enterprises.

Each CIC will also provide training in business management and ownership for community residents.

Another element of the plan calls for establishing a local branch of Progress Venture Capital Corp., an OIC-sponsored minority enterprise small business investment company (MESBIC), in each of the eight cities. They will provide a vehicle for reinvestment of the cooperatives' funds.

The CICs will be patterned after the highly successful job development program started in the early 1960's by OIC founder and chairman, the Rev. Leon H. Sullivan. It involves an incremental investment process designed especially for low-income persons. Through 1975 this method produced some $1.8 million for investment in community projects and job producing businesses in the North Philadelphia area.

Using funds provided by the one-year grant from Commerce, OIC is applying this method to start similar units in Jacksonville, Fla.; Rocky Mount, N.C.; Augusta, Ga.; Springfield, Ohio; Oklahoma City, Okla.; Saginaw, Mich.; Trenton, N.J.; and Santa Ana, Calif.

First-year goals for each CIC city have been set at 500 local investors in the cooperative, 50 persons trained at economic development training centers, and $150,000 of venture capital funds for the local branch of Progress Venture Capital Corp.

In announcing the OMBE grant, Commerce Secretary Elliot L. Richardson said, "The self-help theme which is the foundation of the OIC program parallels the goal that guides Commerce's efforts to stimulate economic development—to help communities help themselves."

Alex Armendaris, director of the Office of Minority Business Enterprise, pointed out that his agency is in a position to work closely with the new CICs through its regional offices and some 270 local business development organizations it supports around the country .

SEVEN PRIVATE FIRMS JOIN GREAT LAKES ICE NAVIGATION PLAN

Seven Great Lakes shipping companies have joined the Maritime Administration (MarAd) in funding a $230,000 research project to open the northern waterways to year-round shipping.

The project, through a series of ship-model tank tests and shipboard experiments, seeks to develop an improved bow design which will enable bulk-carrying vessels to transit the heavy ice that halts shipping operations on the lakes each winter.

According to Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, who heads MarAd, the contract is both significant and exceptional because "it marks the first time that so many Great Lakes companies have joined in a research effort of this kind."

MarAd will fund 78 percent of the total cost while the remainder will be borne jointly by a consortium headed by Pickands Mather and Co., of Cleveland, and includes the following firms:

Litton Great Lakes Corp., Erie, Pa.; Great Lakes Fleet, United States Steel Corp., Duluth, Minn.; American Steamship Co., Buffalo, N.Y.; and Hanna Mining Co., Cleveland-Cliffs Steamship Co., and Oglebay Norton Co., all of Cleveland.

The technical effort will be conducted by Arctec, Inc., of Columbia, Md., as a subcontractor to Pickands Mather. Arctec's role is to determine how the bows of Great Lakes bulk carriers can be improved to increase their ice-transiting capabilities without decreasing their cargo-carrying capacity. This will involve two primary tasks:

- Model tests—a series of resistance and maneuvering tests with a 20-foot (1/50th scale) model of a modern, 1,000-foot Great Lakes bulk carrier. The model will be designed and built by Arctec in modular form so that it can be fitted and tested interchangeably with three different bow forms.
- Shipboard tests—a series of full-scale ice-impact-load tests, using strain gauges, to measure forces on the hull of the large lake tug-barge *Presque Isle* under winter ice conditions. Arctec will develop a mathematical (predictor) model that will enable ship designers to predict impact forces that would be encountered with differing bow forms.

The ice-transiting bow research project is part of a winter navigation demonstration program authorized by Congress in 1970 aimed at extending the navigation season on the entire Great Lakes-St. Lawrence Seaway system.

The Maritime Administration has committed $2.5 million in R&D funds to this program over the past six years. Previous MarAd research contracts have aimed at the development of a laser navigation system to facilitate winter operations on the lakes; evaluation of various hull designs; testing of air-bubble systems, which control icing conditions in selected lake waters; and development of a VHF-FM telecommunications system which permits Great Lakes vessels to dial directly into commercial phone lines.

The ice-navigation program is directed by the Winter Navigation Board, which includes labor and industry representatives from a private interests advisory group; representatives from nine federal agencies, and observers from three Canadian organizations.

NATO Auto Makers To Exchange Data On Energy-Saving Progress

Automobile manufacturers and government officials from nine nations will meet in Washington April 18-22 to exchange the latest information on the development of energy-efficient, low-pollutant vehicles.

Sponsored by the North Atlantic Treaty Organization's Committee on Challenges of Modern Society, the meeting will be hosted by the U.S. Energy Research and Development Administration.

Technical sessions will be devoted to: Stirling, Diesel, Rankine, and gas turbine engines; electric and hybrid vehicles; power train components; stratified charge and spark ignition improvements; automotive emissions (including exhaust gas and noise); vehicle improvements (weight, aerodynamics and safety); and the role of the automobile in future transportation.

This will be the fourth International Symposium on Automotive Propulsion Systems/Low Pollution Power Systems Development. The focus of the meetings was originally on developing lower pollutant vehicles among the auto-producing industries of NATO members, but growing concern with the energy problem has led to more and more concentration on energy-saving vehicles and development of alternate fuels.

Participation is open to all sectors concerned with transportation research—government, private organizations and academic institutions.

For additional information, contact Ms. Nancy Myers, Div. of Transportation Energy Conservation, Office of Conservation, ERDA, Washington, D.C. 20545.

Four Reports Give Details On Ocean Merchant Ships

The Maritime Administration has published four statistical reports on oceangoing vessels in both the U.S. and world merchant fleets.

Merchant Fleets of the World, updated annually, summarizes MarAd's extensive collection of data on oceangoing steam and motor ships of 1,000 gross tons and over in the merchant fleets of all maritime nations as of Dec. 31, 1975. This edition (GPO Stock No. 003-007-0073-1) may be ordered from the Superintendent of Documents, GPO, Washington, D.C. 20402, at $1.25 per copy.

Bulk Carriers in the World Fleet (GPO Stock No. 003-007-0074-0); $2.15/copy provides detailed information on general, special and multipurpose bulk carriers (ore/bulk/oil, e.g.) of 67 countries as of Dec. 31, 1975. The report notes that the number of ships in this category has nearly doubled and their total deadweight tonnage has increased fourfold in the preceding ten years.

Containerized Cargo Statistics, published every year, summarizes containerized cargo statistics for each of the Maritime Administration-designated U.S. foreign trade routes for calendar year 1974 and contains other information about the transportation of cargo in containers in the waterborne foreign commerce of the United States. A limited number of copies are available upon request from the Office of Public Affairs, Maritime Administration, U.S. Department of Commerce, Washington, D.C. 20230.

The Vessel Inventory Report, a semi-annual publication, lists U.S.-flag dry cargo and tanker information as of June 30, 1976. It is also available from Maritime's Public Affairs Office.

ERDA To Review Procurement Policies With Industry

The Energy Research and Development Administration and the oil/gas industry will discuss ERDA procurement policies and contract procedures at a Dec. 2-3 seminar in Houston.

The Gulf Universities Research Consortium will host the meeting at the Jetoro Boulevard Quality Inn.

The seminar will provide a forum for both ERDA and industry to become better acquainted with the other's specific needs. Maximum participation by industry representatives will be encouraged.

ERDA representatives will explain current policy and anticipated trends and answer questions.

Seminar sessions will be open to the general public. Additional details may be obtained from Dr. E. Alan Lohse, Gulf Universities Research Consortium, (713/6687-0992), or Richard A. Justis, ERDA's Division of Procurement (202/376-9065).

Personal Income Breakdown Covers Over 3,000 U.S. Areas

Personal income data for 3,618 metropolitan areas, nonmetropolitan area counties, economic areas, and states have been prepared by Commerce's Bureau of Economic Analysis.

Titled *Local Area Personal Income, 1969-74*, the four volumes show: total and per capita personal income by place of residence, personal income by type of payment, and labor and proprietors' income by major industry and place of work.

Personal income in 1974 increased 9.8 percent in metropolitan areas and 7.3 percent for all nonmetropolitan counties combined. Metropolitan areas accounted for 78 percent of the total.

On a per capita basis, personal income for metropolitan areas was $5,813, 107 percent of the U.S. average. For nonmetropolitan counties, per capita personal income averaged $4,444, 82 percent of the U.S. average.

Among metropolitan areas, the fastest-growing ten in 1974 total personal income were: Anchorage, Alaska — 26 percent; Richland-Kennewick, Wash.—21 percent; Bakersfield, Calif.—20 percent; Odessa, Texas—17 percent; Houston, Texas—17 percent; Fresno, Calif.—16 percent; Baton Rouge, La. — 16 percent; Fort Myers, Fla.—15 percent; Fayetteville, N.C.—15 percent; Beaumont-Port-Arthur-Orange, Tex. 15 percent.

On a per capita basis, the highest 10 SMSAs were (with percentage above national average in parenthesis): Bridgeport-Stamford-Norwalk-Danbury Conn., $7,781, (43); Anchorage, Alaska, $7,159, (31); Washington, D.C.-Md.-Va., $7,102, (30); Nassau-Suffolk, N.Y., $7,084, (30); San Francisco-Oakland, Calif., $7,030, (29); Newark, N.J., $6,861, (26); Chicago, Ill., $6,780, (24); New York, N.Y., N.J., $6,668, (22); West Palm Beach-Boca Raton, Fla., $6,622, (21), and Reno, Nev., $6,620, (21).

Economic profiles, tracing changes over a six-year period, can be drawn up for all 3,618 areas with the help of the four-volume set, as shown below.

For example, Charles County, Maryland, had become a metropolitan commuter county by 1974 in contrast to its rural nature in 1969. Its population grew by 12,000 in the six-year period and its per capita income increased from 81 to 93 percent of the national average. The amount of residence adjustment—which reflects commuter earnings—rose by more than 300 percent.

In Louisa County, Virginia, the construction of a nuclear power plant shows up in the jump in earnings from construction in 1974. Construction accounted for 52 percent of local earnings in 1974 compared with 11 percent in 1969. Manufacturing, trade, and government accounted for 66 percent of earnings in 1969 and only 32 percent in 1974. Due to the construction, more workers now commute into the county than out. This is reflected in the negative 1974 residence adjustment amount.

In Stearns County, Minnesota, manufacturing jumped from $44 million in 1969 to $81 million in 1974. Population gained about 12 percent.

Walsh County, North Dakota, benefited from rising farm income which accounted for two-thirds of total earnings in 1974. While population remained constant between 1969 and 1974, per capita income went from 80 to 143 percent of the national average.

Send order for *Local Area Personal Income, 1969-74*, to the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. Make check payable to NTIS. Be sure to mention accession numbers of the volumes desired.

Vol. I includes methodology and classification of SMSAs and BEA economic areas. Shows data for all states, BEA economic areas, and SMSAs. Accession No. PB 254055. $10.

Vol. II shows data for counties and SMSAs in the following states: Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin. Accession No. PB 254056. $13.75.

Vol. III covers Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Accession No. PB 254057. $16.25.

Vol. IV covers Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, Washington, and Wyoming. Accession No. PB 254058. $16.25.

All are also available in microfiche for $2.25 apiece.

Canadians To Get More U.S. Tourism Information

A free service providing travel information about U.S. tourist attractions has been expanded to two additional Canadian cities, according to Commerce's United States Travel Service. InfoRoad USA, which was initiated in the metropolitan Toronto area in 1975, will open shortly in Montreal and Vancouver.

The phone-in, write-in, walk-in service is aimed at Canadian motorists. Some 9.9 million Canadians visited the United States in 1975, and three-quarters of these traveled by automobile.

Vancouver's InfoRoad will be a cooperative project of USTS, the Pacific Northwest Regional Commission (representing the states of Oregon, Washington and Idaho) and the San Francisco Convention and Visitors Bureau. It will be operated under contract by the British Columbia Automobile Association, affiliated with the Canadian Automobile Association.

InfoRoad in Montreal will be a cooperative effort by USTS and the states of Maine, New York and Florida through a contract with the Montreal Touring Club, also a CAA affiliate.

The U.S. areas participating in the projects are doing so because of predominant Canadian travel patterns from the metropolitan areas being served to these regions.

InfoRoad USA's services will be within reach of more than 1.3 million Canadians residing in the metropolitan Vancouver area and nearly 3 million Montreal area residents, in addition to the 2 million Canadians already being served in Toronto.

Maritime Helps Builders Of Two Large Containerships

Commerce's Maritime Administration has awarded an $86.4 million contract to Maine's Bath Iron Works Corp., to construct two large containerships for American Export Lines.

Maritime will pay $21.4 million or 49.64 percent of the cost of each vessel under the federally assisted ship-construction program.

The contract will provide approximately 2,000 man-years of employment for the Bath workforce and an equal amount of employment in the marine supply industry which will furnish the machinery, equipment and materials used in the ships' construction.

Each vessel will be 610 feet long and accommodate 1,070 containers. They will have crews of 37 and a service speed of 21 knots. Deliveries are scheduled for July 1979 and May 1980.

American Export Lines will place the ships in regular service between the Atlantic Coast ports of the United States and the Mediterranean.

The contract brings to 64 the number of vessels ordered from American shipyards under the Merchant Marine Act of 1970. These ships, valued at $3.2 billion, will have a cargo capacity equivalent to 45 percent of the active U.S. fleet.

Northeast Pennsylvania Gets Customs 'Sanctuary' To Keep Jobs In U.S.

U.S. manufacturers have another "no-man's land," their twentieth, where they can make or alter goods moving in international trade while American Customs officials look the other way.

Commerce's Foreign Trade Zones Board recently approved the Eastern Distribution Center, Inc.'s, request to establish a foreign-trade zone in the Wilkes-Barre/Scranton customs port of entry.

A foreign-trade zone is an area under U.S. Customs supervision to which foreign mechandise may be brought without the immediate requirement of a formal Customs entry. Generally, the goods may be exhibited, stored, assembled, or used in manufacture within the zone. Duties need not be paid unless and until the goods or their end products enter U.S. Customs territory from the zone. Domestic goods moved into a zone for export are considered exported, for purposes of excise tax rebates and Customs drawback procedures, upon entering the zone.

The advantage of such zones is that they allow firms which have customs costs to contend with to carry on operations in the United States rather than overseas. This results in the greater utilization of domestic labor and facilities.

The zone will be located within the Eastern Distribution Center industrial park in Pittston Township, Luzerne County, Pennsylvania. It will cover 42 acres within the 265-acre industrial park adjacent to the Wilkes-Barre/Scranton International Airport.

Part of overall effort

Initial construction will include a 50,000 square foot public warehouse, and additional facilities will be built to meet the needs of individual tenants. The Zone, which will serve the special Customs needs of the international business community, is part of the area's efforts to attract industrial and distribution activity to which Commerce's Economic Development Administration has also made significant contributions. Trade name of Eastern Distribution Center, the zone grantee and operator, is International Trade Center of Pennsylvania.

Foreign-trade zone grants are issued under the Foreign-Trade Zones Act of 1934 which empowers the Board—consisting of the Secretary of Commerce, as Chairman, and the Secretaries of the Treasury and Army—to authorize qualified public and private corporations to establish zones in or near U.S. ports of entry.

Wilkes-Barre/Scranton joins New York City, New Orleans, San Francisco, Seattle, Mayaguez (Puerto Rico), Toledo, Honolulu, Bay City (Michigan), McAllen (Texas), Kensas City (Missouri), Kansas City (Kansas), Little Rock, Sault Ste. Marie (Michigan), San Jose (California), Omaha, Portsmouth (Virginia), Charleston (S. Carolina), Chicago and Buffalo in establishing such a facility. San Francisco and Honolulu have special-purpose subzones connected with their zones.

Two States Join Voluntary Fishery Inspection Program

Cooperative agreements to inspect fish and fishery products in Tennessee and Arkansas were signed recently by representatives of the states and the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (NOAA).

This program, a voluntary, fee-for-service arrangement, assists the fish industry in improving and maintaining the quality and safety of its product through inspection and standardization procedures usually carried out by federal inspections.

The agreements permit state food inspectors to be trained and cross-licensed by the Fisheries Service, an arm of the Commerce Department, so that they can inspect fishery plants and preducts on behalf of the Fisheries Service in their states. Cross-licensing makes inspection services more readily available to the trade and more inspected products available to consumers.

"During our inspections, special attention is given to wholesomeness, proper species identification, and quality in either fish or processed fish products," says Tom Billy, Seafood Quality and Inspection Division Chief.

"We also concern ourselves about problems of excess breading and short weight products to assure the consumer that what he purchases contains what the label indicates."

Inspection of fish products over the last two years has encouraged better plant sanitation as well as improved processing and quality control methods.

"More research is needed, however," Billy explains, "to fully understand the effects of fluctuating temperatures during transit and storage, from the time it leaves the processing plant until the time it is removed from the consumer's refrigerator to be eaten.

"The impact of these fluctuations on the physical and chemical properties of seafood and breading mixtures is another area needing further investigation."

Other states are expected to sign similar cooperative agreements with the result that more products inspected by Commerce Department procedures will be available to consumers.

Vanpooling Programs Yielding Energy Benefits Across Country

Vanpooling is paying big energy dividends to firms and their employees across the country, and the Federal Energy Administration is trying to popularize the concept.

FEA has launched five test demonstrations of vanpooling, a company-sponsored transportation program that provides low-cost and convenient commuting for employees, who travel to and from work in 12-passenger vans driven by fellow employees. FEA has calculated that if 5 percent of the U.S. work force commuted in vanpools, it would save more than 100,000 barrels of oil per day.

The FEA program is designed to interest companies in acquiring the vans and setting up a procedure to get vehicle routes established. One of the employees drives the van and gets his transportation free. The other riders pay a fare covering all operating and capital costs.

The benefits of vanpooling and the means to establish it have been outlined to companies in the Chicago suburbs; Nassau and Suffolk counties in New York; Hartford, New Haven and Bridgeport, Connecticut; Santa Clara and San Mateo counties in California; and New Orleans, Louisiana. Each of the establishments contacted has more than 500 employees and is located in an area not well served by mass transit.

Where specific interest is expressed, FEA will provide technical help to companies setting up a vanpooling program.

Both employers and employees already participating in vanpooling have realized benefits. Benefits to employers include reduced need for parking spaces, a lower rate of tardiness and absenteeism, better employee relations, and access to more potential employees. Employees save on gasoline costs and wear on personal vehicles, receive door-to-door service, and have a guaranteed seat.

Each van can save up to 3,200 gallons of gasoline per year, while cutting down on air pollution and traffic congestion. On the average, a full van takes the place of seven cars.

Vanpooling has been initiated by companies throughout the U.S. out of concern over the energy situation, parking problems, and other company objectives. Companies already using the technique include the 3M Company, General Mills, Hoffman-LaRoch, Prudential, Polaroid, and Continental Oil.

3M's Commute-A-Van, which received an FEA Excellence Award earlier this year, began as an experimental project in April, 1973, with six 12-passenger vans. Three years later, 77 vans carry more than 800 employees to and from work daily at the 3M Center in St. Paul.

Study Approves Waiving Federal Rules For Detecting Alaska Pipeline Weld Flaws

Commerce's National Bureau of Standards has endorsed the methods used by the Alyeska Pipeline Service Company to determine the dimensions of weld defects in the trans-Alaska pipeline system, and the influence of those defects on the performance of the pipeline.

NBS investigators concluded that fracture mechanics analysis, a method that forms the basis of a petition by Alyeska to waive federal requirements for certain defective welds in the pipeline, is a suitable methodology to assess performance of the welds. The study also concluded that the specific fracture mechanics analyses carried out by Alyeska are reasonable, with a few minor exceptions.

The study was requested by the Department of Transportation in response to Alyeska's request for a waiver of federal requirements. The Bureau was not asked to make a judgment on the acceptability of the welds, but rather to assess the methods that are used to predict performance to aid DOT in making its judgment on the Alyeska petition. Alyeska claims that the defects in the welds are borderline variances that do not jeopardize the integrity of the welds nor the safety of the pipeline.

The NBS study noted that the defect size measurement methods used in all the fracture mechanics analysis models that were evaluated are subject to errors, the magnitude of which cannot be precisely estimated.

The Bureau concluded that in general the Alyeska analyses were reasonable except for certain small defects.

A copy of the report, *Consideration of Fracture Mechanics Analysis and Defect Dimension Measurement Assessment for the Trans-Alaska Oil Pipeline Girth Welds*, can be obtained from the Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590.

Companies Urged To Apply For Anti-Pollution Awards

Companies that have made outstanding achievements in pollution control are eligible for a new joint government-industry awards program, the National Environmental Industry Awards. The program is sponsored by the President's Council on Environmental Quality and the Environmental Industry Council.

The awards will honor individual companies that have installed pollution control technology and systems. In addition to a national award for overall excellence, there will be special awards in the areas of air, water and wastewater, noise, solid waste and resource recovery. The selections will be made by an independent panel of judges that includes economists, businessmen, engineers and other experts.

Entries may be submitted until December 31. Award application forms are available from the Environmental Industry Council, Suite 210, 1825 K St., NW., Washington, D.C. 20006 (telephone 202-331-7706).

'FAR OUT' IS THE WORD FOR THIS ENERGY SCHEME

It begins to look like we won't have to wait until the 25th Century to usher in the age of Buck Rogers and Flash Gordon. By as soon as the year 2100 the United States could be getting its energy from "colonies" far out in space, the Federal Energy Office says.

The colonies, built from moondust and placed in orbit around the Earth, would offer convenient low-gravity workshops for building giant solar-power stations which would orbit the Earth and beam down energy through microwaves.

This plan was presented recently by a group of very serious, feet-on-the-ground Princeton University physicists.

"We think it can solve the energy crisis permanently, with cheap solar energy, and with no by-products," says Eric Hannah, a researcher on the project. In short, the Energy Millenium may be just around the corner.

The cylindrical colonies would have soil covered valleys, supporting houses, forests and streams, divided by large glass windows to admit sunlight. Each colony would be powered by solar energy collected through parabolic mirrors in its end cap.

Chemicals would produce an Earth-like atmosphere inside the cylinder, and eventually the colony would develop its own weather—complete with clouds and rain. Crops would be grown in the moondust soil, enriched with nutrients to shorten the plant growing season from months to weeks. Harvesting would be year-round.

Planners could design landscapes to match those of many places on Earth, making it easier for new residents to adapt to life on the colonies.

The National Aeronautics and Space Administration (NASA) first funded the program in 1974, but Princeton's Gerard K. O'Neil has been seriously studying the idea since 1969. He believes Earth's population would level off as space emigration increased.

Pharmaceutical manufacturing and mining are other exports the colonies could provide to Mother Earth. Purifying drugs is less expensive in space because of zero gravity of electric fields. Asteroids, rich in high-grade iron and nickel, could be collected in space and sent to Earth. One asteroid might provide enough steel to satisfy Earth for ten years.

Census Studies U.S. Voter Turnout In '76 Election

An extensive study of voter participation in the recent elections will determine the number of eligible voters, the number of registered voters, and the number of persons who actually voted.

Being undertaken by Commerce's Bureau of the Census, the study is authorized by the 1965 Voting Rights Act, which directs Census to conduct a survey in every state and certain political subdivisions.

The Census Bureau began the study immediately after the elections. The study involves complete censuses in 28 counties and independent cities and sample surveys in 65 jurisdictions.

After the censuses and surveys are completed, the compiled data will be presented to Congress as statistical tables. As in all censuses, no identifying information can be released about any individual and only sworn Census employees will seek personal information.

The questionnaire being used is shorter than that used in nationwide censuses. Each household member will be asked his name, sex, relationship to household head, race, date of birth, marital status, and national origin. In addition, those 18 years or older will be asked questions about their U.S. citizenship, whether or not they voted, and if they did not vote, whether they were registered to vote.

U.S. Overseas Reinsurance At Record Levels In 1975

U.S. insurance companies received more than $690 million in net premiums from reinsurance sold abroad in 1975, the Commerce Department has reported. This is the largest amount in the 26 years that such transactions have been reported.

Losses paid abroad on reinsurance totaled $480.2 million, leaving net U.S. receipts of $210.4 million for reinsurance of risks undertaken abroad.

Meanwhile, U.S. insurance companies paid out in net premiums more than $830 million to foreign reinsurers in 1975, likewise the largest amount ever reported.

Recovery of losses on this reinsurance totaled $558.2 million, leaving net U.S. payments of $262.3 million for reinsurance of U.S. risks accepted abroad.

The resulting effect for all current reinsurance transactions for 1975 was a net outflow of $51.9 million to foreign reinsurers in 1975.

Because it does not take account of profits remitted to the U.S. by U.S. insurance companies doing business abroad, this net outflow does not constitute the total effect of the international activities of the U.S. insurance industry on the balance of payments.

Researchers See Silicones As Possible Substitute For PCBs, Insulating Oils

American researchers have narrowed down their search for a product that can prevent a possible short-circuit in the supply of electricity to U.S. industry.

The Energy Research and Development Administration (ERDA) is funding a search to find replacements for polychlorinated biphenyls (PCBs) and certain petroleum-based mineral oils used in equipment critical to delivering electricity to residential and business consumers.

PCBs are being phased out of production because they are carcinogenic, and supplies of the mineral oils are dwindling. Both materials are used as insulating fluids in power transformers and other electrical equipment.

Transformers reduce electric energy from high to low voltage and are crucial in getting electricity from power plants to homes and businesses.

Because of their excellent fire resistance, PCBs have been used in transformers inside buildings, on trains, and in other places where non-flammability is a critical requirement. First introduced in the 1930s, PCBs have been used in paints, inks, adhesives and other products as well as transformers and capacitors. PCB-filled capacitors presently are used in television sets and fluorescent lights.

In recent years, however, PCBs have been found in streams, wildlife and humans and have come under sharp criticism because of potential toxicity and persistence in the environment. In late September, Congress passed the Toxic Substances Control Act which includes the phaseout of PCB production, importation and use over a 2-½ year period.

One more decade

Mineral oils have been used since the 1890s as insulating fluids in electrical equipment where non-flammability is not critical. However, it is estimated that the domestic wells which pump the particular crude oil presently used to produce these fluids may be depleted in about a decade.

Currently much of ERDA's research effort in replacing both of these items is focused on silicones, a family of colorless synthetic liquid polymers.

The General Electric Company's Pittsfield, Mass., laboratories recently began a study of silicone fluids under ERDA contract. From a group of about 40 silicone fluids, the GE research team will seek four to six types with the best potential for use in power and distribution transformers.

The study will include determining the basic characteristics of the silicones, their flammability, heat transfer capability, electrical strength, compatability with the environment, and other factors. Eventually, the work is expected to lead to development and design of several prototype transformers for detailed evaluation.

Preliminary findings indicate that silicones are much more fire-resistant than mineral oils and have the potential of reducing the size of future power transformers.

Silicones generally are considered to be non-toxic and have good electrical properties, but at present are relatively expensive.

Firms With Disaster Plans Sought For Starring Roles

Does your firm have a disaster plan? Does it have special emergency facilities which can be filmed? If the answer to both of these questions is yes, the American Society for Industrial Security is interested in making your company famous.

ASIS recently was awarded a Defense Department contract to produce a motion picture on industrial disaster preparedness.

The 26-30 minute film will portray the need for industrial and business organizations to develop, update and maintain industrial preparedness programs which can preserve company resources and operational capabilities in the event of a natural or man-made disaster.

Sites for filming are being surveyed, and ASIS welcomes any suggestions of companies which have instituted disaster plans.

The film will emphasize the basic elements of disaster preparedness, including: the survey, the emergency plan, protection of vital records, continuity of management, emergency operating capability and mutual aid plans.

Brochure, too

The project will also include preparation of a brochure incorporating key points in the film, and giving reference information on the essential need for disaster planning.

ASIS—whose membership is composed of professional security managers—is the largest organized group, nationally or internationally, in the security profession. Its members are those individuals primarily responsible for the development of systems and measures that prevent and eliminate unlawful acts against information, persons and property of the private and governmental organizations they serve. Members represent industry, government, business, public institutions including hospitals and schools, banks, public utilities, transportation and other industrial and commercial fields.

Pamphlets Help Building Owners 'Look Before They Leap' On Solar Energy

Business decision-makers and homeowners who are considering installing solar heating and hot water equipment, but who are not sure if the savings are worth the investment, can find some answers in four pamphlets recently published by the Energy Research and Development Administration.

Solar Energy for Space Heating and Hot Water (document SE-101, provides some of the cost and savings figures that consumers and builders need to decide whether or not to use solar space heating and water heating equipment. Charts, graphs, and drawings help the reader decide if solar equipment would be economical for a home or building in his particular climate zone.

Knowing probable purchase price and installation costs together with projected savings, can help a homeowner estimate how long it would take the solar equipment to pay for itself, and whether or not he wishes to make the investment.

For example, the owner of a 1,500-square-foot structure in Minneapolis can cover about 70 percent of heating and hot water needs with an investment of between $7,500 and $22,500 in solar energy equipment. The resultant annual savings would be on the order of $1,000 on the electric bill or $440 on oil, according to the pamphlet.

The same equipment could supply about 85 percent of the heating and hot water needs of a similar building in Phoenix, at an installed cost of $2,000-$6,000 worth of solar equipment. The estimated annual savings in this case would amount to more than $500 in electric costs or $195 in oil.

For the uninitiated, basic background information can be found in *Solar Energy*, a booklet written for ERDA by William Eaton. It tells how and why solar energy works, and briefly describes the major applications of solar energy, such as heating, cooling, and conversion to electricity. The booklet includes pictures, diagrams, and a short bibliography.

I've Got A Question About Using Solar Energy answers the eleven most frequently asked questions, such as: "What sort of financial help can I get for installing a solar system? Where can I find listings of solar equipment manufacturers? How do I go about selecting solar equipment? How can I learn how to build it myself?" This pocket-sized pamphlet also tells the reader how and where to obtain more detailed information on the subject. Its document number is EDM-816.

Solar Energy and Conservation for Home Heating and Cooling, EDM-817,

explains how solar technology and conservation techniques can be combined to help homeowners save money.

Single free copies can be obtained from ERDA's Technical Information Center, Box 62, Oak Ridge, Tennessee 37830. For multiple orders, request an order form and price information.

More Than $1 Trillion Worth Of Property Now Subject To Local Taxes

Property subject to local property taxation in the United States is now assessed at more than $1 trillion.

In a special study of the property tax base, Commerce's Census Bureau says that the 1975 value of all property subject to local general property taxation was $1 trillion and $96.3 billion, an increase of $223.7 billion over the valuation in 1973 when the last similar study was made.

In 1975, $33.4 billion of property value was exempt from taxation for various reasons, leaving the net assessed value of $1 trillion and $62.9 billion available for taxing.

Excluded from the property tax base were: (1) property owned by nonprofit and otherwise qualifying groups or institutions and used for beneficial purposes such as government, religion, non-profit medical care, and education; (2) new industrial plants exempt for stated periods of time in specific states as an inducement to new industry; and (3) other property exempted by specific legislative action.

Net locally-assessed real property, which represented more than 80 percent of the 1975 net property tax base, increased from $679 billion in 1973 to $853 billion in 1975.

The net total of taxable property included $74.8 billion of state-assessed value and $998.1 billion of locally-assessed value. The state figure is an increase of $15.5 billion over the 1973 figure of $59.3 billion due largely to increases in the value of utilities other than railroads.

In fiscal 1975, property taxes accounted for $50 billion in local tax revenue, or about 32 percent of revenue from all sources, and nearly 82 percent of local government tax revenue.

This special study is part of the Bureau's planning activity for the Property Values Survey to be conducted as part of the 1977 Census of Governments.

Copies of State and Local Government Special Study No. 80, *Property Values Subject to Local General Property Taxation in the United States: 1975*, are available for $1.95 from the U.S. Government Printing Office, Washington, D.C. 20402 or from Commerce Department District Offices in major U.S. cities.

Value of Property Subject To Local Taxation, 1975

(Millions of $)

Area	Gross assessed value: Total	Gross assessed value: State-assessed	Gross assessed value: Locally assessed	Net assessed value: Total	Net assessed value: State-assessed	Net assessed value: Locally assessed
United States	**1,096,321**	**74,841**	**1,021,483**	**1,062,916**	**74,809**	**988,102**
Alabama	6,066	1,169	4,897	5,912	1,169	4,743
Alaska	5,981	1,080	4,901	5,981	1,080	4,901
Arizona	5,875	2,026	3,849	5,821	2,020	3,801
Arkansas	3,283	615	2,667	3,283	615	2,668
California	82,743	5,041	77,702	73,246	5,028	68,218
Colorado	8,431	841	7,590	8,431	841	7,590
Connecticut	24,929	—	24,929	24,536	—	24,536
Delaware	3,281	—	3,281	3,232	—	3,232
District of Columbia	7,862	—	7,862	7,862	—	7,862
Florida	99,498	393	99,105	90,636	393	90,243
Georgia	25,776	2,511	23,265	23,870	2,511	21,358
Hawaii	11,598	—	11,598	10,416	—	10,416
Idaho	1,549	283	1,266	1,532	270	1,262
Illinois	53,013	1,350	51,663	53,013	1,350	51,663
Indiana	14,103	1,372	12,731	13,211	1,372	11,839
Iowa	43,729	3,567	40,162	43,729	3,567	40,163
Kansas	7,697	1,204	6,492	7,697	1,204	6,493
Kentucky	31,335	3,565	27,769	30,226	3,565	26,661
Louisiana	6,715	1,392	5,323	5,418	1,392	4,026
Maine	7,447	320	7,127	7,374	320	7,053
Maryland	25,406	4,781	20,625	25,406	4,781	20,625
Massachusetts	29,879	600	29,279	29,879	600	29,279
Michigan	56,815	—	56,815	56,815	—	56,815
Minnesota	10,884	37	10,846	10,884	37	10,846
Mississippi	3,346	707	2,638	2,563	707	1,855
Missouri	13,298	1,622	11,675	13,298	1,622	11,675
Montana	1,362	333	1,029	1,362	333	1,029
Nebraska	6,734	107	6,627	6,152	107	6,045
Nevada	3,338	510	2,828	3,305	510	2,795
New Hampshire	6,813	—	6,813	6,766	—	6,766
New Jersey	72,950	—	72,950	72,941	—	72,941
New Mexico	3,358	1,027	2,330	3,062	1,027	2,035
New York	77,623	3,292	74,331	74,025	3,292	70,732
North Carolina	51,102	5,683	45,419	51,102	5,683	45,419
North Dakota	671	—	602	669	69	600
Ohio	47,395	14,251	33,144	47,395	14,251	33,144
Oklahoma	5,369	1,075	4,294	4,676	1,075	3,601
Oregon	33,641	3,005	30,636	32,009	3,005	29,004
Pennsylvania	23,970	—	23,970	23,970	—	23,970
Rhode Island	5,485	—	5,485	5,345	—	5,345
South Carolina	1,671	770	901	1,671	770	901
South Dakota	3,608	195	3,413	3,608	195	3,413
Tennessee	10,882	1,471	9,411	10,882	1,471	9,411
Texas	31,926	145	31,781	31,926	145	31,781
Utah	2,771	843	1,928	2,771	843	1,928
Vermont	2,282	—	2,282	2,282	—	2,282
Virginia	22,675	1,811	20,865	22,675	1,811	20,865
Washington	46,022	2,711	43,312	45,927	2,711	43,216
West Virginia	8,683	1,657	7,026	8,683	1,657	7,026
Wisconsin	33,283	—	33,283	33,283	—	33,283
Wyoming	2,168	1,410	759	2,158	1,410	747

Note. Because of rounding, detail may not add to totals.

A DEVICE FOR ALL SEASONS: TURNING WASTE HEAT TO ENERGY

Benjamin Franklin would be proud! His admonition to "Waste Not, Want Not," has graduated from being a piece of pious —though largely ignored—folk wisdom to national policy.

In short, now we're saving everything, including the heat that used to be discharged into the atmosphere.

A system that will generate electricity by using industrial waste heat as a "fuel" is being developed by the Sundstrand Corporation of Rockford, Illinois, under a cost-sharing contract with the Energy Research and Development Administration (ERDA).

Sundstrand will design an organic Rankine cycle system (ORC) to capture and use the heat energy usually wasted when fossil fuels are burned in large, stationary diesel engines or to make heat for industrial processes. The firm also will arrange to build and test five demonstration units, each able to produce 600 kilowatts of electricity without using "fuel" in the usual sense.

In the near term, the system may allow utilities to get as much as one-third more electricity from diesel generating systems without burning additional fuel.

With an ORC, the waste heat, instead of being dumped into air or water, is diverted to a heat exchanger where it will heat a working fluid such as toluene, a common ingredient of many household solvents. When the working fluid is boiled, the gaseous vapor is expanded through a turbine and drives an electric generator.

Present day diesel engines used by utilities to generate electric power have efficiencies of only about 35 percent, meaning that 65 percent of the energy value of their fuel is wasted in cooling or is rejected as exhaust heat. By the same token, heat that is produced in industrial processes such as steel or glassmaking is typically wasted, or exhausted up a stack.

The typical utility diesel turns from 35-38 percent of the heat energy from burning fuel into horsepower to drive a generator, losing about 28 percent in cooling operations, and passing about 34 percent up the stack. With the organic Rankine cycle system to capture exhaust heat, 7-8 percent more of the original heat energy can be converted into mechanical or electric energy.

"Large diesel engines of this type are usually amortized over a period of fifteen or twenty years," said ERDA's Dr. John Belding. "Therefore, cumulative fuel savings gained by coupling ORC systems to existing diesels could be enormous over the life of this equipment."

Several important features distinguish the ERDA/Sundstrand cooperative agreement from most other federal R&D contracts. In general, it is a cooperative agreement that recognizes a partnership between the government and the corporation, based on substantial cost-sharing and mutual interest in the success of the project. For example, important management decisions are determined jointly, changes will be made only by mutual agreement, and either party, under certain conditions, may terminate the agreement.

The agreement also includes built-in incentives to encourage Sundstrand to produce equipment that is both extraordinarily reliable and efficient. To the extent that the ORC system meets minimum standards for reliability and efficiency called for under the agreement, ERDA's share of the project cost will be increased, and Sundstrand's share correspondingly reduced.

Of special interest is a provision that will enable the government to recover part or all of its costs—or even make a profit—in return for support of the project. Within five years Sundstrand may either pay back the federal share of the project cost or, alternatively, it may elect to pay the government a "royalty" of 3 percent on its ORC equipment sales during a ten-year period.

Development of the ORC system, including construction and field testing of five 600 kilowatt units, will take place over a four-year period. Sundstrand, with ERDA approval, will select five utility or industrial plants in which the units will be demonstrated.

Project Seeks Recovery Of Untappable Oil On Commercial Scale

Even after an oil field has been drilled and pumped twice, vast supplies of oil remain trapped in deep reservoirs.

Over the next ten years, Marathon Oil Company and the Energy Research and Development Administration will try to demonstrate for the first time on a commercial scale a way for getting that remaining oil.

If the process is successful, it could be used on many fields in north central Texas and the mid-continent to recover several hundred million barrels of oil which cannot be tapped with present technology.

The project, using a process called micellar polymer waterflooding, will be carried out in a 350-acre area of the Robinson field in Crawford County, Illinois.

The technique involves injecting detergent-like chemicals to release trapped oil, followed by a chemically thickened water to control and direct the micellar chemical flow. Finally, plain water forces the oil-chemical mixture to existing wells from which oil can be pumped.

The percentage of oil that can be recovered from U.S. reservoirs is only 32 percent on a national average. About 20 percent can be produced from primary recovery, or the first effort. About 12 percent can be produced with the assistance of secondary and tertiary techniques (the second and third effort), commonly called enhanced recovery.

Marathon has been working on tertiary recovery for some 15 years. The current project was preceded by two sizable pilot tests which Marathon carried out successfully on its own.

The ERDA program for enhanced recovery of oil and gas aims at developing and transferring new recovery technology to the private sector. The program is designed to broaden the participation of private industry through cost-sharing contracts.

With about 50 percent of the costs for field demonstrations to be paid by industry, ERDA expects to add 2 billion barrels of oil and 10 trillion cubic feet of natural gas to U.S. reserves through enhanced recovery by 1985. This would mean an increase of 500,000 barrels of oil per day and three billion cubic feet of natural gas per day.

New Ocean Unit Will Aid Federal, Private Programs

Commerce's National Oceanic and Atmospheric Administration has established an Office of Ocean Engineering.

It will include the existing NOAA Data Buoy Office, the Office of Manned Undersea Science and Technology, and certain functions of the former National Oceanographic Instrumentation Center.

In announcing the new unit, NOAA Administrator Dr. Robert M. White said, "Energy and other crucial offshore development require significant advances in fundamental engineering knowledge. Our knowledge is now inadequate, and the lack of that knowledge is contributing daily to the high cost of continental shelf development."

Not only will the new office coordinate existing NOAA ocean engineering programs; it will initiate some of its own while serving as a focus for technology transfer within the entire marine community.

A major element of the new office's effort will be an ocean instrumentation program useful not only to NOAA but to private marine programs.

Computer Program Aids Architects In Designing Energy-Efficient Buildings

A computer program developed at Commerce's National Bureau of Standards is helping engineers and architects design more energy-efficient buildings.

Computer simulations are often used by engineers to study the thermal performance of buildings in an effort to design energy-efficient heating and cooling systems. Inaccurate load calculations can lead to over-designed heating and cooling equipment that uses more energy and operates at lower efficiency.

The NBS computer program is based on extensive information accumulated over the past decades in various phases of building heat transfer problems, and is intended for use in the design of equipment and air conditioning systems as well as for estimates of building energy requirements.

Originally developed as a research tool, the NBS Load Determination (NBSLD) program has a number of features that allow the accurate determination of heating and cooling loads in buildings. It was developed because most available computer programs were not suitable for analyzing building designs incorporating unconventional or innovative structures, heating and cooling systems, or controls.

NBSLD covers some 300 variables in three categories: the weather, the building, and the way the building is operated. The computer output is presented in the form of a profile of heating and cooling loads on an hourly, daily, weekly, monthly, or yearly basis.

The program enables the merits of various building constructions and systems to be evaluated and has already been used for studies of HUD housing systems and buildings of the Defense Department and the General Services Administration (GSA) where nonconventional designs had to be evaluated.

For example, NBS researchers used the program to help design a GSA office building in Manchester, New Hampshire, that will use one-third less energy than a similar building of conventional design.

The new computer program document contains highlights of the unique features of NBSLD, summaries of various subroutines along with the detailed procedures to use them, a complete Fortran listing, and data preparation forms.

The easy-to-use program is contained in a 398-page document titled, *NBSLD, the Computer Program for Heating and Cooling Loads in Buildings*. It can be purchased for $4.60 a copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C 20402. (Order Catalog No. C13.29/2:69).

Calendar Of Business Events

Nov. 28-Dec. 2—Dearborn, Mich.—ELECTRANS, Hyatt Regency Hotel. Contact, Society of Manufacturing Engineers, (SME) P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500).

Nov. 29-30—Columbus—Regional Conference/Workshop on Industry-Education and School-Based Placement Services, Holiday Inn. Sponsor: National Assn. for Industry-Education Cooperation. Contact, Raymond A. Wasil, Rm. 1005 Ohio Dept. of Education, 65 S. Front St., 43215 (614-466-4590).

Nov. 29-Dec. 1—Dallas — National Telecommunications Conference, Fairmont Hotel. Contact, NTC-76, P.O. Box 10645, Dallas, Tex. 75207 (214-690-7123).

Nov. 29-Dec. 1 — Washington, D.C. — Transactional Analysis in Management I, Georgetown Univ. Contact, Betsy Girton, Continuing Mgt. Education Program, SSCE, Georgetown Univ., Washington, D.C. 20057 (703-525-6300).

Nov. 29-Dec. 1—Gaithersburg, Md.—Bicentennial Conference on Mathematical Programming, National Bureau of Standards. Contact, William Hall, A422, Admin. Bldg., NBS, Washington, D.C. 20234 (301-921-3855).

Nov. 29-Dec. 2—Syracuse — Seminars on management and financing in the construction industry, conducted by Jack Miller. For information, Madeline Graeter, Group Communications, Inc., 6101 Southwest Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

Nov. 29-Dec. 10—Chicago — Distribution System Planning short course, Institute of Gas Technology. Contact, IGT, 3424 S. State St., 60616 (312-567-3650).

Nov. 30—Pensacola — Productivity Measurement Seminar, Sheraton Inn. Contact, Rick Dye, Research Director, Pensacola Area Chamber of Commerce, P.O. Box 550, 32593 (904-438-4081).

Nov. 30-Dec. 1—Houston — Energy Management in Buildings seminar, Shamrock Hilton. Contact Heidi Kaplan, New York Conference Mgt. Center, 360 Lexington Ave., New York 10017 (212-953-7266).

Nov. 30-Dec. 2—Chicago—Economic and Financial Analysis in Manufacturing, Sheraton Plaza. Contact, Heidi Kaplan, New York Conference Mgt. Center, see address above.

Nov. 30-Dec. 2—Cleveland—Mass Finishing Techniques clinic, Marriott Inn. Contact, Michael Tolzdorf, SME, address above.

Dec. 1 — Ft. Lauderdale — Productivity Measurement Seminar, Holiday Inn-Oceanside. Contact, Bill Ashley, Ft. Lauderdale Area Chamber of Commerce, 208 SE. 3rd Ave., 33302 (305-462-6000).

Dec. 1-3—Atlanta—IBFI Chief Executives Conference, OMNI International Hotel. Contact, International Business Forms Industries/PIA, 1730 North Lynn St., Arlington, Va. 22209 (703-527-6000).

Dec. 1-3 — Washington — First National Forum on Business, Government & the Public Interest. Contact, American Mgt. Associations, 135 West 50th St., New York 10020 (212-586-8100).

Dec. 2-3—New York—New Directions in Securities Litigation, Barbizon Plaza Hotel. Contact: Practising Law Institute, 810 7th Ave., New York 10019 (212-765-5700).

Dec. 6-7 — New York — Fundamentals of Management & Organizational Behavior for Women, Barbizon Plaza Hotel. Sponsor: The Wharton School. Contact: Heidi Kaplan, N.Y. Mgt. Ctr., see address above.

Dec. 6-8 — Orlando, Fla. — Southeastern Engineering Conference and Tool & Mfg. Exposition, Howard Johnson & Sheraton Towers hotels. Contact: SME, address above.

Dec. 6-8—Gaithersburg, Md.—Bicentennial Winter Simulation Conference, National Bureau of Standards. Contact: Paul Roth, B250, Tech. Bldg., NBS, Washingtoin, D.C. 20234 (301-921-3545).

Dec. 7-9 — Cleveland — Drawing Sheet Metal Clinic, Sheraton Inn-Hopkins. Contact: SME, see address above.

Dec. 7-9—Chicago—Electrical Discharge Machining Clinic, Hyatt Regency O'Hare Hotel. Contact: SME, see address above.

Productivity Conference Proceedings Available

The proceedings from last June's conference on productivity measurement, sponsored by the National Center for Productivity and Quality of Working Life, the U.S. Departments of Commerce and Labor and the National Science Foundation, are now available.

Papers reprinted from the conference present techniques of measurement of company and industry productivity, and specific examples of productivity measurement at a division of Alcoa and in the warehousing function. In addition to the papers presented at the conference, the paperbound book contains a description of productivity research programs at the National Science Foundation and a Canadian study on interfirm comparisons.

Single free copies are available from the National Center at 2000 M St., NW., Suite 302, Washington, D.C. 20036 (202-254-9890)

Imports Still Climbing Faster Than Exports

DOMESTIC RECOVERY BOOSTS U.S. PURCHASES SHARPLY BUT SALES GAIN IS MODEST, NINE-MONTH FIGURES SHOW

U.S. foreign trade expanded in both directions in January-September this year, but the growth rate for imports exceeded that of exports by a substantial margin. The disparity in these rates resulted in a large shift in the merchandise trade balance from a surplus in 1975 to a deficit this year, the Commerce Department's Office of International Trade Analysis reports.

Exports were running at a seasonally adjusted annual rate of $113.5 billion in the first nine months, 6 percent higher than the 1975 total. Imports climbed 23 percent over last year to a rate of $118 billion, valued f.a.s. ($126.9 billion, c.i.f.). The trade balance was in deficit $4.5 billion at an annual rate, based on f.a.s. values ($13.4 billion with imports valued c.i.f.), compared to a surplus of $11 billion last year.

The modest growth of exports so far in 1976, evident particularly in the early months when sales abroad actually turned downward, appears mainly related to the impact of recessionary conditions abroad early last year as well as the subsequent weakness of the cyclical rebound in key foreign countries. The more vigorous rise in U.S. imports this year, compared to the U.S. export increase, reflects more buoyant economic conditions in this country during the recovery.

In contrast to 1975, when trade in both directions fell in real terms, the volume of both exports and imports rose this year. Moreover, this year's growth in overall trade prices represents a deceleration from the advances posted in 1975.

On a quarterly basis, U.S. trade displayed an uneven pattern so far in 1976. Exports, after declining in value in the first quarter, posted a sizable increase in the subsequent three months, but slowed considerably in July-September. Imports, on the other hand, rose strongly in January-March, decelerated in the second quarter, but expanded sharply again in the most recent three-month period.

Nonfarm sales abroad climb

The rise in U.S. exports so far this year was led by increased sales of nonagricultural products, which continued to expand as in each of the past 16 years though at the slowest rate since 1971. Nonfarm sales in January-September climbed 8 percent over the same period last year to $67.6 billion. After a first quarter drop, these shipments advanced in the next three months and expanded further in July-September. Machinery exports, which account for more than one-third of U.S. nonfarm sales abroad, expanded 10 percent over the comparable 1975 period, half of last year's rate of advance. Sales of most types of machinery rose. Deliveries of computers and parts expanded after a fractional advance last year. Increases were also recorded for well drilling machinery and air conditioning equipment. Sales of telecommunications equipment and power machinery and switchgear were higher. The rebound in production of consumer electronic goods abroad, particularly at U.S. subsidiary plants, led to a sizable recovery in shipments of electronic components, many of which return to this country incorporated into finished products. On the other hand, construction equipment sales were modestly higher this year in contrast to last year's big increase, while deliveries of office and textile machinery declined.

Exports of motor vehicles and parts continued to climb substantially in January-September. Deliveries to U.S. subsidiaries in Canada expanded 17 percent in value, slightly faster than in 1975, while those to non-Canadian destinations slowed to a 2 percent rise following a jump of more than a half last year. Most of the expansion to Canada stemmed from greater shipments of parts in response to stepped-up vehicle production there for the U.S. market. Automotive exports to other countries were limited by a sharp falloff in truck deliveries to Iran from last year's exceptionally high level, but shipments of cars and parts continued to advance.

After posting a slight decline last year, chemical exports expanded 13 percent in the first nine months of 1976. The advance was largely the result of recoveries in shipments of organic chemicals and plastic materials which had fallen sharply during the recession abroad. Partly offsetting these increases was a drop-off in the value of fertilizer exports caused by a steep decline in prices from the high levels prevailing last year, reflecting a better balance between world supply and demand.

Textiles, paper, and lumber were among other industrial supplies and materials to record substantial export increases, after having declined in value in 1975 due to slumping foreign economic activity. On the other hand, with foreign steel demand remaining sluggish during much of this year, U.S. exports of iron and steel mill products dropped one-fourth from their value in the comparable 1975 period. Similarly, deliveries of steel scrap and coal, major steel-making materials, fell substantially.

Exports of agricultural products advanced to $17.5 billion in January-September, representing a 6 percent increase over the same period last year. Increased U.S. grain and oilseed supplies led to a lower average export unit value for farm products compared to 1975, thereby holding down the growth in the value of these exports. Among individual products, corn shipments posted the largest gain, boosted by heavy deliveries to the USSR and Eastern Europe. Sales of soybeans and oil-cake and meal also expanded substantially, recovering from last year's declines. Meat and tobacco shipments also expanded. Wheat and rice exports, however, fell substantially from January-September 1975 levels.

Industrial, consumer imports rise

In contrast to the small rise recorded in 1975, purchases of petroleum and products rose 27 percent in value to $23.3 billion, which accounted for more than a fourth of the overall import increase so far in 1976. Most of this advance con-

Industrial Supplies, Consumer Goods Swell Imports

F.a.s. transaction values in millions of dollars, seasonally adjusted

	Jan.-Sept. 1975	Jan.-Sept. 1976	Change
Industrial supplies, total	36,876	44,939	+8,063
Petroleum	18,388	23,333	+4,945
Nonferrous metals	1,854	2,663	+ 809
Lumber	642	1,014	+ 372
Chemicals	2,754	3,349	+ 595
Consumer goods, total	17,371	23,949	+6,578
Passenger cars	5,234	6,826	+1,592
Auto engines and parts	2,269	3,831	+1,562
Clothing	1,642	2,688	+1,046
Consumer electronics	770	1,279	+ 509
Foods, feeds, beverages	7,180	8,528	+1,348
Capital goods	8,008	9,596	+1,588

sisted of greater volume as domestic demand rose while crude production here continued to fall. The value of these petroleum purchases was further boosted by a five percent increase in import prices.

Crude arrivals were up sharply, but imports of refined products fell a bit as a decline in distillate fuel oil entries more than offset greater purchases of residual fuel. Imports of petroleum into the Virgin Islands, which are reported separately in Census Bureau data, amounted to another $1.6 billion or a 19 percent increase in January-September. These arrivals were mostly crude oil to be refined for shipment to the United States.

Imports of most types of industrial supplies other than petroleum also expanded vigorously. Entries of nonferrous metals, particularly refined copper, zinc, and aluminum climbed more than one-half as the growth of industrial production in the U.S. generated greater demand and stimulated inventory rebuilding. Reflecting a sharp third-quarter upturn, lumber and plywood entries rose in value over last year, benefiting from a pickup in construction activity. Tire imports were up significantly, partly as a result of the nearly four-month rubber strike in this country. Chemicals and woodpulp also recorded an increase, as did the value of newspaper imports despite a falloff in quantities received. Steel imports, at $3.2 billion, declined from very high levels of about two years ago, although the volume rose 8 percent over the January-September period of last year.

Nearly half of the increase in consumer imports resulted from greater automotive entries. Arrivals of new cars from U.S. subsidiaries in Canada expanded by almost $600 million; vehicle parts from Canada also rose sharply. A sizable increase was noted in car imports from Japan reflecting a surge in U.S. sales and a buildup of inventories here. In contrast, imports of West German cars fell. Among non-automotive consumer items, purchases of electronic products, clothing, and footwear grew steadily.

After declining last year, the value of food and beverage imports climbed 19 percent in January-September, largely as a result of higher prices. Coffee entries, at $1.9 billion, rose nearly three-fifths in value, but were slightly lower in volume. Reduced world coffee supplies, resulting primarily from severe frost damage in Brazil, accounted for much of the huge price increase. Higher prices caused the bulk of the upturn in the value of meat and fish arrivals. On the other hand, sugar imports dropped $623 million as larger world sugar production and increasing stocks depressed sugar prices.

Capital goods imports, unchanged in value last year, expanded 20 percent in the first nine months of this year, in part because of a pickup in business investment expenditures here. Purchases of office equipment, textile and leather machinery and parts, and most other types of machinery also rose in value. Arrivals of trucks from Canada were 45 percent greater. Aircraft engines and parts receipts, however, were greatly reduced.

Area trade developments

Exports to most major world areas expanded this year. Sales to Canada, the European Community and the communist countries grew at an accelerated rate compared to 1975. Deliveries to Japan managed a small increase following last year's decline. The growth in exports to the oil-exporting LDCs was substantially reduced, however, and shipments to the other LDCs fell. Imports from all regions climbed, led by arrivals from Japan and both the oil- and nonoil-exporting developing countries. Entries from Canada and the EC recovered from the declines of last year.

TRADE CONVENTION BACKS MULTINATIONAL COMPANIES AGAINST GLOBAL CHARGES

The multinational corporation, supplying a trillion-dollar underpinning to today's global economy, is far too important both to the industrialized and developing nations to be brought down by charges of corrupt practices, exploitation and political manipulation.

This was the message addressed to the U.S. public by the nation's international business community as it met in New York this month at the 63rd National Foreign Trade Council convention. The context is a period that was defined for the delegates by a Texaco executive as the "multinationals' 'winter of discontent'" and by a UN official as a time of challenge to "existing institutions to prove their legitimacy."

Cecil J. Olmstead, vice president of Texaco, pictured the growing worldwide criticism of multinational corporation activity in the decade of the '70s, culminating in "the lightning bolt of bribes and other questionable payments abroad that struck in the very countries which have been strong supporters of free enterprise.

"This matter threatens to become the major criterion by which to judge the general conduct and role of the multinational corporations," he said, offering a view shared by many other speakers. He declared that it obscures a genuine analysis and resolution of the real problems in this field and produces a serious loss of confidence on all sides of the business-public-government relationship.

The convention's policy declaration touched on the attacks against multinationals in affirming "It is of the utmost urgency for governments and multinational enterprises to reach an understanding of and solutions to the problems which threaten the relationships between them and with their publics, since the need for continued benefits from operations of multinational enterprises has never been greater."

Restoration of trust was also the concern of keynoter Howard Morgens of Procter & Gamble, who put it on a personal basis: "It is not enough to say that our businessmen are just as ethical as lawyers or politicians or government officials. American businessmen must lead the way in setting ethical standards for their own conduct wherever they do business. Only by doing so will they continue to be welcomed and trusted."

Morgens placed a trillion-dollar dimension on the present value of the goods and services produced annually by the foreign affiliates of all multinational companies. He said this is the equal of the value of all foreign trade.

Two current efforts to regulate the

activities of multinational firms were placed under a spotlight by the convention: the voluntary guidelines for such firms and for host governments issued earlier this year by the Organization for Economic Cooperation and Development (OECD), and a code being prepared by the UN Centre on Transnational Corporations.

Responding to a criticism of the OECD guidelines as "trivial" made by Dr. Raymond Vernon of the Harvard Graduate School of Business Administration, Deputy Assistant Secretary of State Paul H. Boeker said they should be understood primarily as a beginning effort and as a "package" that is addressed both to companies and to host governments.

Boeker said that the guidelines had drawn an "overwhelmingly favorable response from U.S. business."

Boeker asked the businessmen for a concrete first example of adherence to the guidelines in the form of more detailed financial disclosure: "I am hopeful that most U.S. corporations that consider themselves multinational enterprises will consider it worthwhile to align the financial reporting in their annual reports to stockholders with the OECD guidelines. This concrete step, in response to voluntary guidelines, would be the clearest indication of broad support among U.S. business. Through extensive consultation with U.S. business during the course of the negotiation of these guidelines we have, I think, successfully assured that financial disclosure with the OECD standard protects business confidentiality fully."

Boeker assured the delegates that U.S. officials on their part would work to see that the guidelines are taken seriously by businessmen in all the 24 OECD nations, and that host government actions abroad that appear to breach the guidelines would be "promptly submitted to the discipline of the consultation process."

The convention policy declaration welcomed provisions of the OECD guidelines for their "constructive approach" and recommended that they be given "test by experience."

Klaus A. Sahlgren, executive director of the UN Centre on Transnational Corportations, noted that the UN code is still about two years from completion. Just ahead, however, is a request from his office to a number of U.S. corporations for a "trial run of reporting for their enterprises as a whole, as well as for parent and main subsidiaries." He said this effort, which would be confidential and non-identifiable as to substance, would be made to determine some of the practical problems in the field of obtaining transnational corporate information.

U.S. trade policy in several areas was bluntly ehallenged by two speakers from abroad. Edmund Dell, Britain's Secretary of State for Trade, argued that the United States is harming its leadership role in trade negotiations by its recent imposition of quotas on imports of specialty steel and by its procedures in countervailing duty and anti-dumping cases. Saudi Arabian Ambassador Ali A. Alireza commented vehemently on recent U.S. actions to counter the Arab boycott of Israel, which he defined as "the equivalent of America's long-standing laws against trading with the enemy." He contended that the boycott does not amount to racial or religious discrimination.

New Tax Act Shrinks DISC Export Incentive, Phases Out Another

The favorable tax treatment afforded to U.S. exports accomplished through Domestic International Sales Corporations (DISCs) has been scaled back, and the Western Hemisphere Trade Corporation tax benefit is being phased out.

These are the noteworthy features of the recently passed Tax Reform Act of 1976 which affect exporters. The act has numerous other provisions that touch on international business activity.

Under the DISC program, instituted at the beginning of 1972, U.S. exporters could set up special export corporations which are allowed to defer federal income taxes on 50 percent of profits earned from export sales.

The new tax act restricts this benefit for DISCs that have annual earnings in excess of $100,000, by keying the amount of benefit to an increment of their previous export performance.

Thus, a DISC earning in excess of $100,000 may take advantage of the standard 50 percent deferral only to the extent that the value of its exports in the tax year reported exceeds 67 percent of the annual average of its previous base period performance. Until 1980 the base period will comprise the four years from 1972 through 1975, at which time the base period will begin to progress one year annually. This means that a new DISC, that is, one with its first tax year beginning in 1976 or thereafter, will not have to apply this incremental limitation during the first four years of operation.

Also, the DISC tax deferral is no longer available for export sales which result from illegal payments and bribes to officials of foreign governments or compliance with the Arab boycott, and has been cut in half for exports of military property.

According to boycott guidelines issued by the Treasury Department on Nov. 3, all DISC shareholders must file an international boycott report (IRS Form 5713) if they have any exports to Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen Arab Republic and the People's Democratic Republic of Yemen.

The bribery and boycott provisions apply to all sales resulting from illegal payments made or boycott agreements concluded or continuing in effect after Nov. 3, 1976, and the military sales and incremental limitation provisions to all affected DISCs with tax years beginning after Dec. 31, 1975.

The Western Hemisphere Trade Corporation tax benefit is an effective 14 percentage point reduction in the 48 percent corporation tax rate, available since 1942 to U.S. businesses which invest in, or trade with, countries of the Western Hemisphere. It will be phased out over a period of four years. Starting with tax years beginning in 1976, the benefit shrinks to only an 11 percentage point reduction in the tax rate, and will subsequently drop 3 percentage points each tax year until the benefit completely disappears for tax years after 1979.

For further information on these changes, call or write the Foreign Business Practices Division, Office of International Finance and Investment, U.S. Department of Commerce, Washington, D.C. 20230, telephone 202-377-4471.

Tunis Unveils New Plan At Washington Meeting

A Tunisian delegation recently used a Washington meeting to unveil Tunisia's new (1977-1981) five-year plan, and discussions centered on finding a useful and rewarding role for U.S. business in the implementation of the plan. It calls for investment expenditures of $10 billion during the five-year period and an average annual growth rate of 7.5 percent.

The Oct. 19-21 talks of the U.S.-Tunisian Economic Commission covered all aspects of the Tunisian investment climate, including Tunisia's incentive legislation, good location, infrastructure, and favorable cost factors. The Tunisians expressed particular interest in investments by U.S. enterprises in agribusiness.

In discussions on Tunisia's economic performance in recent years, it was noted that Tunisia had maintained a significant real growth rate (9 percent in 1975) and a minimum of inflation (9 percent in 1975). These favorable trends, together with the expenditures envisaged in connection with the new five year plan, indicate that prospects for U.S. business in Tunisia are better than ever.

Trade matters were also discussed, including the Tunisian desire to diversify its exports to the U.S., which are now dominated by exports of crude oil.

Official Trade Briefs

This article is another in a series of reports that describes actions affecting world trade, as compiled by the Legislative and Tariff Policy Division of the International Economic Policy and Research Bureau's Office of International Trade Policy.

THE PRESIDENT

New Public Laws: On Oct. 20, The President signed into law the first general revision of U.S. copyright law since 1909, P.L. 94-553, to be effective Jan. 1, 1978. The revised law includes an amendment to the "Manufacturing Clause," which increases from 1,500 to 2,000 the limit on the number of copies of English language **books** by U.S. authors produced abroad which can be imported into the U.S. The amendment further provides an exception for Canada, whereby that country will not be subject to the "Manufacturing Clause" limitation at all. Most significantly, PL. 94-553 provides that the "Manufacturing Clause" will expire on July 1, 1982, thereby allowing unlimited copies to enter the U.S. from any country at that time. The conference report on the bill indicated that repeal of the Canadian exception could result if Canada does not become a member of the Florence Agreement under which duty-free entry is accorded to certain books.

President Ford also signed into law the following bills: H.R. 12033 (P.L. 94-560), to continue until June 30, 1979, suspension of duty on **manganese ore** (including **ferruginous ore**) and related products; H.R. 2177 (P.L. 94-511), to exempt from duty **certain aircraft components** previously exported from the U.S.; and H.R. 13955 (P.L. 94-564), to amend the Bretton Woods Agreement Act, including an amendment to increase the U.S. quota in the **International Monetary Fund** by approximately $2 billion.

Enrolled Enactment Vetoed: President Ford withheld his approval from H.R. 4654, a bill to provide Day's Sportswear, Inc., with relief in the form of a monetary settlement of that firm's claim against the U.S. for a credit or refund of customs duties on certain textile importations. The President cited as reasons: 1) that similar claims are presently being litigated in U.S. Customs Court and that approval of H.R. 4654 could "inappropriately predispose" the court's ruling; 2) that H.R. 4654 would constitute preferred treatment of one importer over others having similar claims; and 3) that private relief legislation is only appropriate after all other avenues of recourse have been pursued.

SPECIAL TRADE REPRESENTATIVE

GSP: The interagency Trade Policy Staff Committee has begun its product review of requests for additions and deletions in the list of products eligible for duty-free treatment under the Generalized System of Preferences (GSP). Public hearings on the products being reviewed will commence in mid-December. It is intended that any action to be taken as a result of this review will be implemented by March 1, 1977.

Section 301, Foreign Trade Practices: The American Iron and Steel Institute has filed a petition under section 301 of the Trade Act of 1974 alleging unfair trade practices by the European Coal and Steel Community (ECSC) and the Japanese Ministry of International Trade and Industry (MITI). The Institute alleges that a voluntary restraint arrangement between the ECSC and MITI, setting limits on Japanese exports of steel to the European Community, diverts significant quantities of Japanese steel exports to the U.S. It is further alleged that the agreement violates Articles XI and XIII of the General Agreement on Tariffs and Trade (GATT).

TREASURY DEPARTMENT

Antidumping: The Department has rendered a tentative determination that **fully automatic digital scales** imported from Japan are not being sold in this country at less-than-fair value (LTFV) within the meaning of the antidumping law.

In other antidumping action, the Department has announced initiation of an investigation into the possibility of sales at LTFV of **self-propelled bituminous paving equipment** from Canada. The announcement followed a summary investigation conducted by the U.S. Customs Service which resulted in information tending to indicate that prices of the merchandise exported to the U.S. are less than prices of the same or similar merchandise sold in Canada. U.S. imports are estimated at $2 million annually.

Treasury has also announced a six to eight month extension of the investigation period in the antidumping case concerning **metal-walled above-ground swimming pools** from Japan. Tentative determination in that case is now due by Dec. 21. Imports are about $4.5 million annually.

Countervailing Duty Cases: Affirmative preliminary determinations that bounties or grants are being paid or bestowed on subject goods within the meaning of the countervailing duty law, have been recently rendered in three cases: **groundfish** from Canada; **nuts, bolts and cap screws** from Japan; and **bicycles** from the Republic of China.

Customs Regulations: Proposed revisions of the customs regulations relating to countervailing duties were published in the *Federal Register* of Sept. 21. The deadline for submission of written comments on the proposed changes has been extended to Dec. 17. Interested persons should address their views to the Commissioner of Customs, Attention: Regulations Division, Washington, D.C. 20229.

LABOR DEPARTMENT

Adjustment Assistance—New Investigations: The Labor Department has initiated 90 new investigations to determine whether workers in various industries are eligible to apply for trade adjustment assistance. Many of these investigations involve the **shrimping, clothing** and **footwear** industries. The investigations, which must be completed within 60 days, will determine whether increased imports contributed importantly to the unemployment of a significant number of workers. If so, the Department may certify that the affected workers are eligible to apply for adjustment assistance. Such assistance, under provisions of the Trade Act of 1974, may include cash trade readjustment allowances, training, testing, counseling, job placement, job search grants and relocation allowances.

Certifications: The Department has certified workers at a number of firms as eligible to apply for trade adjustment assistance. These workers have been or may become unemployed as a result of increased imports. The workers certified (numbers where available are approximate) are or have been employees of the following firms: Brown Shoe Co., Union, Mo. **(shoe heels)** 200; Crompton and Knowles Corp., Worcester, Mass. **(casting and power loom parts)** 20; Royal Clothing Co., Philadelphia **(men's suits and sport jackets)** 15; Evans-Aristocrat Industries, Inc. (Billfold Corp. of America; Cardinal Leather Products, Inc.; and E. A. Products, Inc.), Gurabo, P.R. **(wallets and clutch purses)** 200; Enzel-Arthur Richards Mfg. Corp., New York **(men's suit coats, suit pants)** 105; C. M. Gray-Premier Marble Corp., Long Island City, N.Y. **(marble cutting and polishing)** 5; Indiana General Electro-Mechanical Products, Oglesby, Ill. **(D.C. motors)** 130; Bethlehem Steel Corp., Seattle **(industrial fasteners)** 90; Central Screw Co., Sonoma, Calif. **(standard steel screws)** 15; and Bethlehem Steel Corp., Lackawanna plant, Woodlawn, N.Y. **(carbon steel structural shapes and piling)** 400.

Denials: The Department denied petitions for trade adjustment assistance for workers of the following companies:

Trade-Related Legislation Enacted During 94th Congress

BILL NO.	DESCRIPTION	PUB. LAW
H.R. 7709	To continue until June 30, 1978, existing suspension of duty on certain istle.	94- 46
H.R. 7728	To suspend until the close of Oct. 31, 1975, the duty on catalysts of platinum and carbon used in producing caprolactam.	94- 75
H.R. 3361, 7731	To suspend duty on open-top hopper cars exported for repairs or alterations on or before June 30, 1975.	94- 76
H.R. 5509, 7710	To provide duty-free treatment of watches manufactured in any insular possession in the U.S. if foreign materials do not exceed 70 percent of total value.	94- 88
H.R. 8191	To continue through June 30, 1978, existing suspension of duties for metal scrap.	94- 89
H.R. 7715	To extend through June 30, 1978, period during which certain dyeing and tanning materials may be imported duty-free.	94-108
H.R. 7706	To suspend duty on natural graphite through June 30, 1978.	94-120
H.R. 200	To provide for a 200-mile fishing management zone, on interim basis.	94-265
H.R. 9721	To authorize increased participation by U.S. in Inter-American Development Bank, entry of non-regional members and the Bahamas and Guyana in Inter-American Development Bank, and participation of U.S. in African Development Fund.	94-302
H.R. 13680	To authorize funds through fiscal year 1977 for international security assistance and arms export activities.	94-329
H.R. 11321	To suspend until July 1, 1978, duty on certain elbow prostheses imported for charitable therapeutic use or free distribution by certain public or private nonprofit institutions.	94-451
H.R. 10612	Tax Reform Act of 1976.	94-455
S. 2829	International Investment Survey Act.	94-472
H.R. 2177	To exempt from duty certain aircraft components previously exported from U.S.	94-511
S. 2193	To provide increased participation by U.S. in Asian Development Bank.	94-537
S. 22	For general revisions of the Copyright Law, title 17 of the United States Code.	94-553
H.R. 12033	To continue until June 30, 1979, suspension of duty on manganese ore (including ferruginous ore) and related products.	94-560
H.R. 13955	To amend the Bretton Woods Act, including an amendment to increase the U.S. quota in IMF to approximately $2 billion.	94-564
H.R. 421	To amend the Tariff Schedules of the U.S. to permit importation of upholstery regulators and upholsterers' pins duty-free.	94-625
H.R. 11273	To provide for regulation of movement in foreign commerce of noxious weeds and potential carriers thereof.	94-629
H.R. 15977	To amend Export-Import Bank Act of 1945.	94-646

Chilton Metal Products Div. of Western Industries, Inc., Chilton, Wis. (**disposable propane cylinders, gasoline cans, etc.**) 200; C-E Cast Equipment Co., Martin's Ferry, Ohio (**foundry equipment**) 185; Kenosha Auto Transport Corp., Springfield, Ohio (**delivery trucks**); Hiatt Shoe Plant of Stride Rite Mfg. Corp., Lawrence, Mass. (**children's footwear**) 30; Murphy's Wholesale Tailors, New Orleans (**men's custom-made suits**) 30; International Field Data Corp., Houston (**assembly of data on petroleum fields**); Superior Plastics, Inc., Chicago (**custom molded plastic parts**) 70; Rockwell International, Foundry and Production Equipment Division, Reading, Pa. (**iron castings and printing equipment**) 400; Burndy Corp., Toledo (**printed circuit board connectors**) 80; Stride Rite Shoe Co., Newburyport, Mass. (**children's shoes**) 5; Leisure Mfg. Co., Haverhill, Mass. (**women's boat deck sandals**) 5; Lowell Shoe Co., Inc., Lowell, Mass. (**women's duty shoes**) 10; Cardinal Shoe Corp., Lawrence, Mass. (**women's footwear**); Jonnell Shoe Co., Lawrence, Mass. (**women's casual canvas shoes**) 90; Paris Shoe Co., Inc., Lowell, Mass. (**men's footwear**); Star Metal Products Co., Inc., Cleveland (**parts for metal fastener machinery**) 10; Continental Screw Co., Inc., New Bedford, Mass. (**screws**); Bethlehem Steel Corp., Lackawanna plant (**steel ingots, blooms and slab, carbon steel sheet and strip, special products**) 1600; Crompton and Knowles Corp., Grand Street Plant, Worcester, Mass. (**automotive parts**); Enzel-Arthur Richards Mfg. Corp., New York (**men's suit vests**); C. M. Gray-Premier Marble Corp., Long Island City, N.Y. (**marble setting**); Bethlehem Steel Corp., Seattle (**railroad spikes**).

INTERNATIONAL TRADE COMMISSION

Antidumping Cases: The International Trade Commission (ITC) has determined that imports of **electrolytic fixed capacitors** from Japan, which are being sold at less-than-fair value (LTFV) in the U.S., are not injuring and are not likely to injure a domestic industry. As a result, antidumping duties will not be assessed.

The Commission has instituted two new investigations, following Treasury's advice that imports of certain products are being or are likely to be sold at LTFV. The investigations will examine whether LTFV sales of **melamine in crystal form** from Japan and of **certain portland hydraulic cement** from Mexico are causing injury to the domestic industries.

Section 337—Unfair Trade Practices: With regard to the investigation of **reclosable plastic bags**, the Commission has announced its decision to report to the Secretary of the Treasury, pursuant to section 337 (b) (3) of the Trade Act, its finding that certain matters relating to

the possibility of a bounty or grant being paid or bestowed by the Republic of China may come within the purview of the countervailing duty law. The Commission also announced that the unfair trade practices aspects of the case would be the subject of a hearing at 10 a.m., Dec. 16, in the Commission's Hearing Room, 701 E Street, NW., Washington, D.C. Requests to appear should be filed, in writing, with the Secretary of the Commission by noon on Dec. 13.

In another action, the Commission has followed the recommendation of the presiding officer in granting the motion of the ITC investigative staff to terminate the investigation on **dry wall screws**, as no violation of section 337 was found.

Finally, a hearing in connection with the investigation of certain **above-ground swimming pools** is scheduled to commence Nov. 30 at 10 a.m., Room 610, Bicentennial Bldg., 600 E Street, NW., Washington, D.C.

Import Relief: The ITC has initiated an escape clause investigation concerning the effects of imported **television receivers** on domestic producers. The initiation of this investigation, the 19th initiated under section 201 of the Trade Act of 1974, followed receipt of a petition filed by representatives of the U.S. television industry for import relief in the form of quantitative restrictions. Public hearings in connection with this matter will be held beginning Jan. 11 in Chicago at a time and place to be announced; and in Washington, D.C., 10 a.m., Jan. 18, in the Commission's Hearing Room.

In other import relief action, the Commission will hold a public hearing in connection with the section 201 case dealing with **sugar** (see Trade Briefs, Oct. 25) beginning at 10 a.m., Nov. 30 in San Francisco at the Tax Court, Room 2021, Federal Bldg., 450 Golden Gate Ave.

Revised Hearing Date—Study of the Watch Industry: The date of commencement of the public hearing in connection with the ITC investigation of competitive conditions in the **watch industry** has been changed to Jan. 4 at 10 a.m. The hearing will be held in the Commission's Washington Hearing Room, and requests to appear must be received by the Secretary by noon on Dec. 30.

INTERNATIONAL

Foreign Anti-Dumping Actions: Affirmative preliminary determinations of dumping have been announced by Revenue Canada in regard to **pipeline steam controls** and **bacteriological culture media** in prepared form in tubes and plates, both products originating in or exported from the U.S. The cases have been referred to the Anti-dumping Tribunal for consideration of material injury to a Canadian industry.

Two other foreign dumping actions involving United States products have been recently terminated. In the U.K., a complaint alleging dumping by a U.S. manufacturer of **single beam atomic absorption spectrophotometers** was withdrawn; and in Canada, dumping of certain **cat food** from the U.S. has been found not to cause material injury to Canadian production of like goods. Anti-dumping duties will therefore not be assessed.

Foreign Safeguard Actions Affecting U.S. Traders: Quantitative restrictions have been recently imposed by Canada and Australia on certain products of interest to U.S. exporters:

The Canadian Minister of Industry, Trade and Commerce has announced a six-month quota on **double knit fabrics**, limiting imports during that period, begining Oct. 7, to approximately 4.5 million pounds. This is an interim action taken in accordance with a finding that such imports cause or threaten serious injury to Canadian production of those fabrics. The U.S. supplies about 34 percent of total imports, which were approximately 4.6 million pounds during the first six months of 1976.

In Australia, the Ministers for Industry and Commerce and for Business and Consumer Affairs have announced the imposition of tariff rate quotas for the period Sept. 1 to May 31, 1977 on imports of certain **uncoated paper and paperboard**. Consequently, imports at the normal rate of duty (20 percent ad. val.) are restricted to an amount equalling 45 percent of total imports on a weight basis during fiscal years 1975 and 1976. Imports in excess of that amount are subject to an additional duty of 15 percent ad valorem. The action was taken to protect the local industry against injury from imports of which the U.S. supplies 28 percent (approximately $2.55 million in 1976). The question of the need for longer-term assistance to the industry is under consideration.

DISC: The United States has been notified of findings by panels of experts under the General Agreement on Tariffs and Trade (GATT) that the practices of four countries, including the Domestic International Sales Corporation (DISC) program of the United States, constitute export subsidies in violation of Article XVI of the GATT. The other three similar findings concerned certain export tax practices of Belgium, France and the Netherlands. In these four related actions, the European Community (EC) had challenged the GATT legality of DISC, and the U.S. had complained against the three EC member state tax practices in 1974.

The United States plans to propose consultations with interested governments following a meeting Nov. 12 of the GATT Council at which the panel reports were filed. The purpose of these talks will be to achieve a mutually satisfactory solution to the problem of the trade distortive effects of tax practices. Because of the importance of this widespread problem, multilateral as well as bilateral consultations are required as soon as possible. The Administration believes that an internationally satisfactory resolution is essential, rather than uncoordinated unilateral changes in domestic law or policy.

There is no direct effect of the panel's decision on United States law. The DISC is a part of the U.S. tax code and will remain so until the Congress legislates a change in the law. If any proposed legislation is developed, it will follow the normal legislative process, including public hearings.

France Is Set To Implement New Product Language Law

French Law No. 75-1349 makes use of the French language mandatory on labels, presentation leaflets, instruction manuals, descriptions of contents, invoices and receipts, warranties and advertising for products and services sold on the French market. (Exempted are foreign products wellknown in France.) Since the aim of the new law is to protect the consumer, its enforcement is expected to fall more strictly on consumer goods than on capital goods.

For firms employing personnel in France, the law also makes it obligatory to provide a French version of the employment contract. Also, contracts between French public bodies and contractors must be written in French, in addition to any other language.

Although the law provides for an effective date of Jan. 1, 1977, a few months delay in implementation is anticipated. The implementing regulations, which are still in preparation, will provide for certain exceptions. For example, an exception may be made for shipments comprising only one or a few items. A three-month exemption may be provided for goods already in stock.

French officials preparing the implementing regulations have agreed to consider comments regarding potential problems that the regulations may cause U.S. exporters. Comments should be addressed to Harold A. Bratt, Director, Industrialized Nations Division, Office of International Trade Policy, U.S. Department of Commerce, Washington, D.C. 20230. Comments must be in writing and received in Washington by Dec. 15 in order to allow for their evaluation and transmission to French authorities. Copies of an unofficial English translation of the law may be obtained from Commerce Department District Offices.

U.S. FIRMS SELL AT U.K. SHOW, AS INDUSTRIES LOOK TO EFFICIENCIES

Reflecting the current economic situation in the United Kingdom, most British firms are concerned with cutting costs, increasing productivity, and otherwise improving overall cost-effectiveness. The government, meanwhile, in its effort to spread industry—now centralized in the Midlands—throughout the country, offers tax and other incentives to relocating or new establishments.

With this picture in mind, it is not surprising that the U.S. exhibitors at PEMEC '76, a plant engineering and maintenance exhibition in Birmingham, sold $785,500 worth of equipment off the floor, and project $5.9 million worth of orders as a result of participation. Twenty-four U.S. firms displayed a variety of production and plant "aids to industry." Market observations on some of the product categories follow:

Pollution control equipment involved the highest number of U.S. exhibitors and produced the highest floor sales figures. Simple, automatic oil waste removal systems generally are not available from domestic and third country suppliers, and U.S. producers should continue to find acceptance in an ever-increasing market sector. Certain blowers, exhausters, and filtration systems will find a strong market, as government and industry become ever more aware of the necessity of protecting the environment.

In construction, portable rollforming and metal building fabrication machinery is almost unique, and the U.S. producer found an untapped market at PEMEC. Interest was keen in fiberglass products. Manufacturers of telescoping work platforms met with strong competition from U.K. and third country suppliers. Quality, safety, portability, price, and local logistic support are important criteria for buyers.

In materials handling equipment, manufacturers of forklift trucks met with heavy competition; joint ventures or licensing may be the best methods of entering the market. Light weight, portable and relatively inexpensive hand-operated moving and lifting equipment enjoy a good market because the demand for such devices cuts across every facet of industry, and competitors are few.

As for metalworking and finishing tools, the "on-site, in-place flange facing, bearing journal, pipe beveling and internal boring tools and pick-and-place units" on display found a large market. Industrial portable electric hand tools and safety and fatigue mats, though limited in scope, are available locally; U.S. suppliers who can furnish more extensive lines at reasonable prices will find a strong market.

Manufacturers of electric generator sets may find Britain a difficult market to enter with direct imports; but competitively priced U.S. equipment can capture a larger market share if the U.S. reputation for quality and reliability is maintained. High-quality portable power distribution units appear to be in great demand.

New roof maintenance products and balloon-like storage tank liners found a ready market during the exhibition. Compressor channel valve parts and assemblies also were well accepted.

Sales At Brno Fair's U.S. Pavilion Top Last Year's

Floor sales from the U.S. pavilion at the recent Brno Engineering Fair reached almost four times those of last year, even though there were more exhibitors in 1975. One company concluded a direct sale to the Soviet Union in addition to its business in the host country. Several exhibitors consider that participation in this annual event is essential for doing business in the Czechoslovakian market. Two firms appointed local representatives as a result of their contacts in Brno.

This year's U.S. exhibition was comprised of three product categories: materials handling equipment; electronic, electronic measurement, computer and peripheral equipment; and mechanical, hydraulic, and pneumatic seals, butterfly valves, compressor parts and gaskets. Modern, innovative equipment not produced by socialist countries is considered

AT SHOW IN BIRMINGHAM—*Visitors attending the recent U.S. exhibition at Pemec '76, focusing on plant engineering and maintenance equipment, take a close look at O'Brien Machinery's tandem generator set. In photo at right, M. S. Poskitt, representative for Pick-O-Matic, provides technical specifications on the Michigan firm's pick-and-place system.*

BUYERS AT BRNO—*H. Wetzel (center), sales engineer, and Mrs. D. Ottinger, assistant director of East Europe division, Garlock, Inc., demonstrate a teflon-lined valve to two interested buyers at the U.S. exhibition in Czechoslovakia.*

to have the best sales potential—especially products in the latter two groups.

Officials from several government ministries, scientists, technicians, and representatives from foreign trade organizations through which business is conducted visited the U.S. pavilion. Six new-to-market and eight old-to-market firms participated; both new and old sold equipment on display, and expect to conclude additional business within the next 12 months. Floor sales reached $778,300; total estimated to result, $5.3 million.

A new and semi-autonomous enterprise set up to represent foreign firms in Czechoslovakia is now in operation. Called the Association of Firms for Foreign Agencies and of Agency Organizations in Czechoslovakia, it links 11 agencies which, in turn, represent various industrial groups. The effectiveness of this new unit is still being evaluated, according to businessmen active in Czechoslovakian commercial circles.

Telecommunications Show Set For Moscow In April

A telecommunications equipment exhibition, sponsored by the USSR Chamber of Commerce and Industry, is to be held at Sokolniki Park in Moscow April 5-15. Manufacturers from all corners of the globe are expected to display their products—from the simplest to the most sophisticated—during this biennial event, SVJAZ-77. For additional information, write: O.K. Machine & Tool Corp., 3455 Conner St., Bronx, N.Y. 10475; phone, 212-994-6600.

Venezuelan Gains Spur Food Processing Market, U.S. Exhibitors Benefit

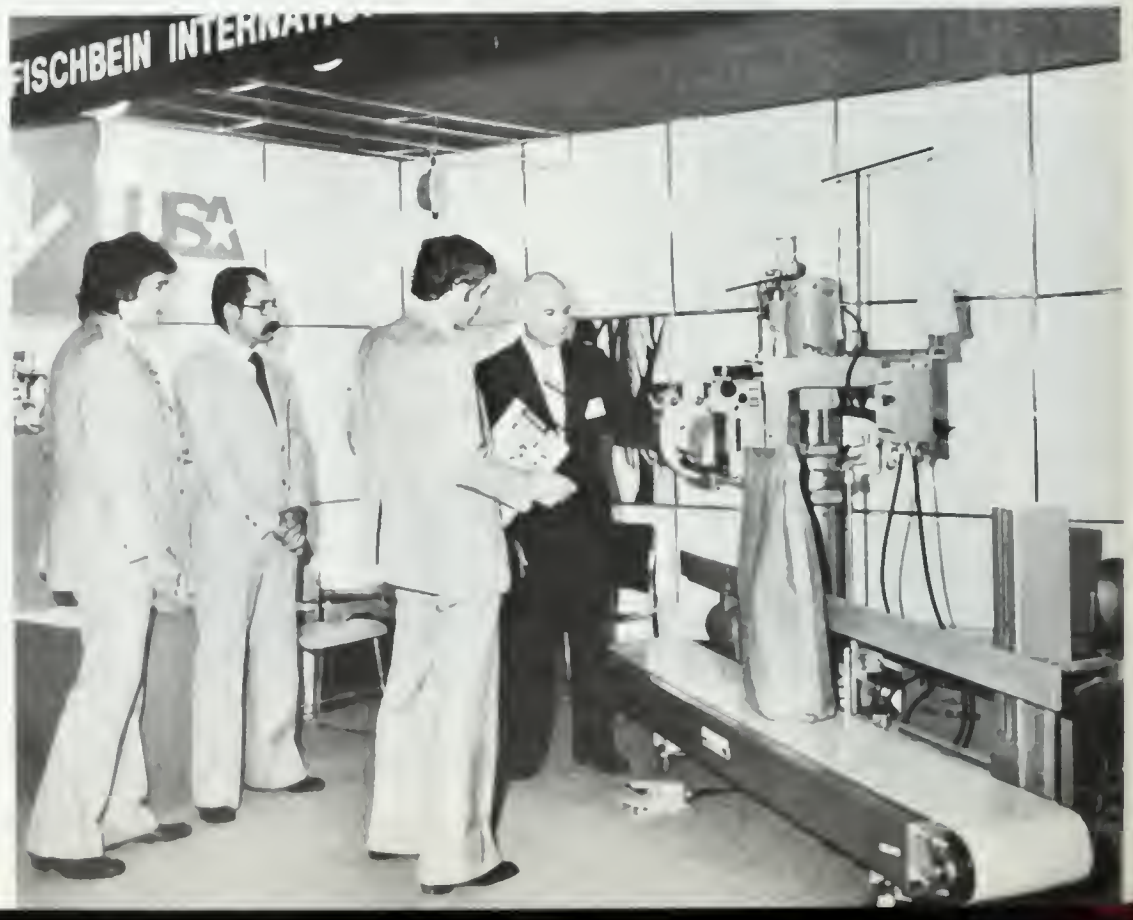
The phenomenal increase in foreign exchange earnings from petroleum and the development-minded government have given the Venezuelan economy a push that is making it one of the world's most dynamic markets. U.S. participants in the recent U.S. Food Processing and Packaging Machinery Exhibition in Caracas confirmed that the Venezuelan food and beverage processing industry is one of the major industries benefiting from the country's economic expansion.

All 40 U.S. companies represented in the exhibition concluded off-the-floor sales—amounting to a total of $1.6 million. Exhibitors project for the next 12 months another $8.3 million in sales as a direct result of their exposure to local buyers. Seventy six "candidates" vied for eight agent/distributor contracts sought by the exhibitors. Special-flooring, modular freezer plants, food processing plants, meat cutters and bone trimmers, ice cream machines, automatic wrapping and weighing machines, and steam generators were among the U.S. firms' products.

For the past several years, growth of the Venezuelan food and beverage processing industries has significantly exceeded that of the gross national product and of manufacturing in general. In view of Venezuela's rapidly increasing population and improving standard of living, this industry will continue to expand with a definite trend toward further mechanization and automation. In 1975, Venezuelan imports of food processing and packaging equipment amounted to $113 million. A 10 percent growth rate is expected during the next five years and the U.S. share of the market will exceed the current 50 percent level.

The recent exhibition was part of a special "Sell in Venezuela" campaign being sponsored by the U.S. Department of Commerce. Six additional shows in this promotional effort will focus on displays of process controls, metalworking, telecommunications, energy, graphics and printing, and plastics production equipment, all to be held at the new U.S. exhibition facility, beginning in April 1977 and extending into the fall of 1978.

PACKAGING IN CARACAS—*George Fischbein (right) of Fischbein International demonstrates his firm's bag-closing machine to visitors during U.S. solo exhibition.*



CANADA GROWS MODESTLY AFTER YEAR OF RESTRAINT; IMPORTS FROM U.S. RISE

Canada's economic recovery, which began about mid-1975, has been modest by historical standards, reports the U.S. Embassy in Ottawa.

Real GNP growth jumped by 2.7 percent in the first quarter of 1976 but dropped to zero growth in the second quarter, and there was sluggishness in the manufacturing and mining sectors. Real final domestic demand—gross national expenditure plus imports minus exports—increased in the second quarter; however, corporate profits were relatively static, unemployment was high, and capacity utilization was low, thus providing little incentive for increases in fixed capital expansion. Most forecasters expect real GNP growth to register about 5 percent for the full year.

The federal government's anti-inflation program of income and profit controls, government spending restraint, and agreements for federal jurisdiction over certain provincial economic segments has been in existence for about a year and produced some signs of success. In August the Consumer Price Index registered its lowest year-over-year increase in three years, and the government was expected to reach if not better its target of no more than an 8 percent rise for 1976. The average rate of increase negotiated in major collective bargaining agreements has been significantly reduced from 16.9 percent for all of last year to 11.5 percent in the second quarter of 1976, and the Anti-Inflation Board (A.I.B.), which has rolled back increases from an average 14.5 percent to 12.1 percent in the nearly 2,000 cases it has reviewed, took credit for the reduced wage settlements.

Thus, some economists are saying that inflation rates are being brought under control and that the economic recovery, although slow by historical standards, is continuing.

Critics of the anti-inflation program claim that lower food prices, over which the Anti-Inflation Board has little control, were mainly responsible for the reduced rate of increase in the CPI, and business criticism of the program has intensified over new profit restrictions. Organized labor, opposed to the control program from the beginning, maintains that the program holds down wage but not price increases and damages the collective bargaining process, whereas business contends that the profit restraints inhibit investment and job creation. The Canadian Labour Congress held a "national day of protest" on Oct. 14, and at least one of the provinces threatened to withdraw from the federal program next March.

The Index of Industrial Production fell in June, dropped below the March level in July, and though it rose slightly in August, remained below the May level. Total fixed investment increased only 0.9 percent in real terms in the second quarter, and business real investment in non-residential construction fell 0.9 percent in the same period. The merchandise trade balance improved, but growing deficits in service payments, largely as a result of huge overseas borrowings, kept the current account deficit at record levels. New housing starts began to slip in mid-year, and direct foreign investment was down considerably.

The large spread between U.S. and Canadian interest rates has fostered record placement of Canadian bond issues abroad. Canadian net issues abroad were over C$4.8 billion for the first six months of 1976 as opposed to $5.2 billion for all of 1975. The conversion of these overseas borrowings has kept upward pressure on the Canadian dollar, and in September the Canadian dollar was trading at about a 3-cent premium to the U.S. dollar. The Bank of Canada's tighter money policy announced in August has helped to keep Canadian interest rates high.

At its biennial convention the Canadian Labor Congress Executive was not only given unprecedented power to call a national day of protest but was also authorized to seek a fundamental restructuring of Canadian institutions in the form of tripartite power sharing between government, business and labor on major economic and social issues. The government has held preliminary discussions on a tripartite consultative forum with labor and business but, given the divergent views, no early agreement on form and substance is likely to emerge.

The apparent futility of calling strikes under conditions where the Anti-Inflation Board is the final arbiter on monetary matters has not resulted in any lessening of industrial conflicts. In the first five months of this year 3,338,620 days were lost due to work stoppages, some over non-wage issues.

Banks, brokerage houses and research organizations are predicting real GNP growth of about 5 percent for all of 1976, dropping to slightly less than 5 percent for 1977. Real business capital formation is expected to remain static, and residential construction will probably decline from the high levels of late 1975 and early 1976.

The unemployment level will likely rise to 7.5 percent unless the federal government decides to stimulate the economy. Most forecasters believe the Canadian dollar exchange level should drop before the end of the year or early in 1977 to par with the U.S. dollar, but few are willing to say precisely when.

The rise in the CPI will probably be under 8 percent for 1976, but it is difficult to see how the target of 6 percent for 1977 can be reached with expected higher energy and food costs, wage settlements running above the A.I.B.'s own guidelines, and no drop yet in the Wholesale Price Index. Government economists are still pinning their hopes on recovery in the United States to stimulate the Canadian upturn.

Canadian figures on direct investment flows north and south of the border for the first six months show a net outflow of U.S. direct investment from Canada of C$43 million. Although Canadian direct investment in the United States was reported to be only $26 million for the same period, U.S. Consulates General report much greater interest on the part of Canadian business seeking investment opportunities in the States. Business officials cite lower increases in wages, less strike activity, and a lower rate of inflation in the United States, fears of continuing controls in Canada,

ACROSS THE BORDER—*The accompanying article reports a net outflow of U.S. direct investment from Canada during the first half of 1976. Pictured is the Ford plant at Oakville, Ontario.*

and the unfavorable exchange rate as principal reasons for their looking to the United States for possibilities of expanding operations.

On a Canadian customs basis, total Canadian exports for the January to August period increased in value 16.9 percent over the same period in 1975, to a total of C$24,739.7 million. Exports to the United States of C$16,789.0 million were 21.7 percent above the 1975 level for the period. The U.S. share of Canadian exports rose from 65.2 percent during this period in 1975 to 67.9 percent for 1976.

Natural gas deliveries to the United States rose $425.8 million over 1975 figures (an increase of 67.3 percent) due to substantial export price increases, and automotive exports to all countries (90 percent of this total went to the United States) rose $2,047.0 million, an increase of 58.4 percent over the January-August period in 1975.

Also advancing strongly

Shipments of forestry products, ores and metals also registered strong advances. Forestry products rose from $2,191.9 million to $3,723.4 million, a 69.9 percent gain. Metal ores, concentrates and scrap shipments increased dramatically from $386.9 million to $1,594.4 million. Even more impressive was the increase in value of wheat shipments—$5.9 million to $1,213.0 million.

On the import side, Canada's global purchases during January-August increased $2,267.6 million to a total of $25,043.3 million, a 9.9 percent gain. Imports from the United States were valued at $17,033.3 million, gaining 10 percent over the previous period, and accounted for 68.0 percent of Canada's total imports, a 1.4 percentage point increase in the United States share over the previous year.

Contrasting with increased imports from the United States, Canadian foreign purchases from other sources declined, with the major factor being a drop in purchases from the EEC (including the United Kingdom) from $2,189.5 million in January-August 1975 to $2,113.4 million for the same period in 1976.

Automotive products, machinery and equipment contributed to the rise in imports from the United States. Automotive imports, mostly from the United States, increased $1,048.8 million, a 20.9 percent gain. Automotive imports from the EEC, however, declined slightly during this period.

In August the government released a White Paper on proposed changes in the Bank Act, which will expire on June 30, 1977, including allowing foreign banks to become chartered banks, setting up a new nationwide payments system, permitting banks to do leasing and factoring, and giving greater discretionary powers to the Finance Minister in regulating banking activity. General reaction to the White Paper, which calls for increased banking competition and efficiency, has been favorable, although questions have been raised about proposed limitations on foreign banks' size and regarding new reserve requirements.

Thirty of the approximately 60 foreign banks now engaged in some form of financial activity in Canada are U.S. banks, and presumably they could become chartered banks under the proposed revisions. The U.S. Embassy in Ottawa would be pleased to discuss the Bank Act changes with representatives of U.S. banks not now operating in Canada.

Balance of payment figures for the first half of 1976 show relatively little direct foreign investment flows to Canada during the period, only C$50 million as opposed to C$371 million in the comparable period last year. Canadian direct investment abroad was also down, C$220 million versus $366 million, but increases in the second quarter brought the average quarterly level near the levels for 1974 and 1975.

Phase II of the Foreign Investment Review Act, pertaining to the establishment of new business, has now been operating for a year, and decisions under the section, as with previous takeover screenings, appeared to be nondiscriminatory as to nationality of the investor.

The U.S. Consulates General in Montreal and Toronto report greatly increased interest by Canadian business in investment opportunities in the United States. State investment authorities in Pennsylvania, Michigan and Tennessee are capitalizing on this interest by sending investment teams. Other state investment groups might consider organizing similar delegates to visit major Canadian cities to explore joint venture and/or wholly-owned operations in the States with Canadian companies.

Despite the uncertain pace of general economic activity, the U.S. Consulates General across Canada continue to report some attractive trade prospects in the various regional markets. In Ontario there appear to be possibilities for U.S. manufacturers of consumer durables whose production cost advantage and/or novelty overcome duty, tax and transportation factors. Markets should also be good for add-ons and attachments for existing machinery, if the products increase output or diversify functions. Energy-saving and pollution-control equipment is also believed to have a continuing market potential in Ontario, but equipment should be novel.

Commercial products having the best prospects in Atlantic Canada include the following: equipment for the coal mining industry; farm equipment, especially for root crops; equipment for the logging and lumbering industry; and fishing industry equipment.

High demand in Quebec

In Quebec, textiles, mill products, apparel and other textile products continue to offer comparative advantages to U.S. exporters. It should be noted, however, that there is strong domestic pressure for protection in this industry. Demand remains high in this province for U.S. construction equipment and supplies, builders' hardware, housewares, home decoration products and maintenance products. U.S. exporters could also find possibilities for process control instrumentation equipment, motors, generators, measuring, monitoring and controlling devices, and for miscellaneous fabricated metal products. Interest is also expected to continue high in educational and training consumables, giftware and premiums for advertising and promotional use.

In British Columbia the emphasis on capital investment has changed from spending on expansion to repair and modernization, and U.S. equipment may have sales opportunities. The increase in new housing starts in the province should also provide some opportunity for U.S. exporters of consumer durables.

Alberta provides a rapidly growing market for U.S. goods and services and in general is very receptive to new foreign investment. Areas which appear to have particularly good potential for U.S. suppliers are earthmoving equipment, environmental testing devices, process control instrumentation, transportation equipment, and pipeline materials.

Reconciled Trade Figures

The United States-Canada Trade Statistics Committee has completed the reconciliation of the two countries' merchandise trade statistics for 1975. The reconciled estimate of the U.S. merchandise trade surplus vis-a-vis Canada for the year was $1.3 billion.

Because of differences in concepts and collection procedures, official figures published by Canada had put the U.S. surplus at $1.9 billion while the figures on trade with Canada published by the United States (based on Customs valuation) showed a U.S. deficit of $0.4 billion (on an f.a.s. value basis the U.S. figures reflected a nominal surplus of $15 million). The reconciled figures are based on a conceptual framework approximating balance of payments principles. This framework provides a means to circumvent differences in concepts and collection procedures used in the official trade statistics of the two countries.

AID BRACES PAKISTAN, EXPANDS OPPORTUNITIES

Pakistan's economy has performed better in the past year than in the preceding period, reports the U.S. Embassy in Islamabad, with real GNP up 5 percent.

The wheat crop is substantially larger than the previous record, and inflation roughly half of the previous level. The economy continues to suffer from lack of growth in the industrial sector and from a substantial trade gap. The outlook for the next few years is for a continuing difficult balance of payments situation. The government hopes for further substantial increases in agricultural production, and industrial investment plans now under way should result in substantial increases in capacity in key public sector industries by FY78.

Investment in the public sector continues to increase sharply. The government's announcement nationalizing several agricultural processing industries last July, however, further depressed the already cautious private investment climate and has left Pakistani entrepreneurs with serious questions about what role the government envisages for the private sector in its mixed economy.

A few U.S. firms already in the Pakistan market are expanding. One major investment by a U.S. company in the fertilizer area, supported by World Bank, German and U.S. AID financing, is in an advanced planning stage. In general, however, little new investment activity by American firms is taking place in Pakistan. Petroleum exploration activity by American and other foreign companies is moving slowly. There has been some generalized interest in locating assembly or manufacturing plants in Pakistan, principally to supply neighboring oil countries, but little or no actual movement towards establishing such enterprises is evident.

The best prospects for U.S. exporters to Pakistan are in the areas of equipment for chemical fertilizers, telecommunications, ports, hotels, heavy construction and food processing (such as sugar mills, edible oil processing and wheat and rice milling equipment). Engineering and consulting services will also be needed in connection with development projects.

Foreign aid accounts for a great deal of the investment planned in Pakistan over the next few years. U.S. AID has authorized loans to support a malaria control program and for a fertilizer plant in which the Agrico Corporation will be an equity partner. Substantial AID loans for agricultural investments will finance primarily imports of phosphatic fertilizer and improved seeds. An initial $40 million loan of this sort has been almost fully drawn but others are expected shortly.

U.S. AID has also authorized a technical services loan which will finance economic and engineering feasibility studies and consulting by American and other eligible firms for possible projects proposed by the Government of Pakistan. The follow-on projects are not likely to receive AID financing, however. All the other activities by U.S. AID are focused on areas which will directly benefit the poorest segments of Pakistan's population. Agriculture, rural primary education, population planning and health are major beneficiary sectors.

The World Bank Group has authorized loans for expansion of the natural gas pipeline system of Sui Northern Gas, a fertilizer plant, two development banks, livestock development, improved seed production, electric power and major improvements in the Lahore water supply and drainage system. The Asian Development Bank (ADB) is also active in the fertilizer field, with loans to the Multan and Mirpur Mathelo fertilizer plants. In what is becoming a familiar pattern, both of these projects include some financing from OPEC sources. The ADB has also authorized loans of $22 million for the installation of gas turbines for the Karachi Electric Corporation, and $25 million for the Industrial Development Bank of Pakistan for relending to the private sector. Other loans planned or under consideration by ADB include assistance to the Lyallpur and Hyderabad water supply schemes, and for dredging operations at new Port Qasim near Karachi.

Projects to be financed by OPEC aid and joint ventures with OPEC country participation include an oil refinery, several textile plants, at least two livestock projects, a cement plant, and a polyester fiber plant. Some of the equipment for these projects will come from the United States.

Because of Pakistan's difficult balance of payments situation and high debt service, a crucial element in most export sales is financing. For imports not financed by foreign assistance, the government makes prospective importers, both public and private sector, look carefully at financing terms, and suppliers who cannot offer some form of credit may find themselves at a disadvantage even if their price is competitive.

CHANGES IN BANGLADESH GET ECONOMY ON TRACK

Considerable political change, significantly more liberal economic policy decisions and an improved business climate have developed in Bangladesh over the past year, according to Donald W. Born, Economic/Commercial Counselor at the U.S. Embassy in Dacca.

The violent political coups in late 1975 brought to office an interim martial law government, in which the three military service chiefs play a dominant role, but which is committed to the rule of law and a restoration of democratic procedures.

Important economic policy decisions, designed to curb inflation, increase production, and make more efficient use of limited resources, have been taken. These began with a credit squeeze, devaluation and liberalized import policies in 1975. Since last November, the government has shown a greater willingness than its predecessors to rely on the private sector. The investment climate has improved and numerous import procedures relaxed, easing the process of trading with Bangladesh.

Combined with excellent agricultural harvests due to good weather, these changes have halted inflation, increased supplies, and, despite an annual population growth rate of nearly 3 percent, raised per capita living standards, if only to their very low pre-independence level.

However, the massive, long-term economic problems which this less-developed country faces remain unsolved, and most observers do not expect these fundamental difficulties to be overcome soon.

The government liberalized its investment policy in December and continues to indicate a genuine desire to attract foreign private capital. The broad features of the revised policy include an increase in the investment ceiling from $2 million to $6.6 million (100 million taka) and opening up of virtually all economic sectors to private investment. Even in those few remaining areas reserved to the government, private investors may enter into joint ventures as minority partners. In addition, the government has begun compensating owners of properties nationalized in 1972 and divesting itself, by sale to private buyers, of other properties.

The government has also adopted a large number of measures to liberalize import procedures and to free internal trade. In addition, it has placed a greatly increased emphasis on expanding exports. The role of the private sector has been enlarged in these areas.

Imports of essential commodities continue, of necessity, to receive priority allocation of Bangladesh's scarce foreign exchange. (Non-project, non-foodgrain imports are to amount to about $750 million in the year ending June 1977.) Since export earnings amount to only one-third of the total import bill, such essentials are largely financed by foreign assistance. Apart from foodgrains, these include many commodities and products where American exporters are competitive, such as raw cotton, inedible tallow

and edible oil. These imports are generally financed by multilateral donors, or bilaterally under PL-480. Other commodities regularly imported include drugs and medicines, machinery and spare parts, water pumps and equipment for specific donor-financed projects.

The government makes most of its purchases by international tender. The more important tenders are published in *Commerce America*. A good local agent can also keep U.S. firms abreast of tender opportunities.

Despite its heavy dependence on foreign assistance, which observers believe will continue for many years, Bangladesh has recently increased the share of imports handled by the private sector and liberalized the procedures involved. Only one commodity is now handled exclusively by the public sector Trading Corporation of Bangladesh (TCB), which once handled the majority of imports, and the private sector gets the larger portion of available funds. A recent reduction in licensed importers has meant that an established local importer/agent can now handle a relatively larger volume of goods than heretofore. Also, the allowable minimum size of orders has been increased (to $660), reducing overhead costs on individual orders.

Another area where the government's liberal policies offer U.S. exporters potential trade opportunities is the Wage Earners' scheme, which brings in some $40 million worth of goods to Bangladesh annually. Bangladeshis earning or holding funds abroad may remit goods to Bangladesh for sale without price controls. This gives the remitter a higher return in local currency than the official exchange rate would bring. The list of goods which may be imported under this scheme has been continually expanded and now includes such durable consumer goods as airconditioners and small cars.

Despite these significant recent improvements, import licensing requirements and restrictions generally are expected to remain in effect for the foreseeable future.

Most internal price and distribution controls, for example those on cotton textiles, have been gradually removed over the past 18 months, while the private sector has been allowed a greater role in exporting both traditional items, i.e., jute goods, and non-traditional items, such as handicrafts.

The massive economic development problems facing overcrowded, poor Bangladesh with its limited natural resources are expected to constrain imports and require foreign assistance for many years. Nevertheless, the outlook is for continuing generous aid flows to this less-developed nation and modest but continuing trade opportunities for U.S. exporters.

THAILAND IS DOING WELL; NEW PLAN IS READIED

By most indicators of economic health Thailand is doing very well, reports the U.S. Embassy in Bangkok.

The country is sharing in the general recovery in the world economy. The crucial foreign trade factor is leading the recovery in Thailand, with exports up over 30 percent in the first half of the year. Imports, however, moved ahead only slightly, reflecting the low level of demand for new capital equipment. This is evidence of the cutback in new investment, both Thai and foreign.

While economic conditions are favorable to a revival of investment, the political climate has not been conducive to building public confidence. The government has taken some constructive steps in the economic field but the business community generally is dissatisfied with the slow pace of the government's decision-making process. Much less is now heard about the threat from external aggression or internal insurgency than in the period just after the communist takeover of neighboring countries, but it is still a source of concern for some.

Thailand's Fourth Economic and Social Development Plan covers the period from 1977 to 1981. The country's basically free enterprise economy and democratic government dictate that national planning cannot be the controlling force which it is in communist or socialist states. Planning is largely indicative, setting forth the government's priorities and programs and providing the setting for influencing the direction of private sector activities.

The general thrust of the plan, still not released in final form, is aimed at improved agricultural productivity, greater and more diversified export-oriented industry, a further decline in the rate of population growth and greater attention to employment creation and improved income distribution. The new government elected in April is committed to improving incomes and services in the rural areas and will make it a priority objective of the upcoming Five-Year Plan.

Some of the best investment and sales opportunities for American companies in Thailand continue to be in the agribusiness sector. With emphasis being placed by the government on raising rural incomes and employment and on developing the economy in the countryside, sales prospects look particularly attractive for exporters of agricultural and food processing machinery and equipment, as well as a wide variety of products and services needed for planned development of the rural economy.

As noted above, Thailand's Fourth Five-Year Plan will include rural development among its priority objectives, with the government expecting to allocate considerable sums for such things as irrigation projects, expansion of power generation and transmission facilities, rural electrification, regional airport expansion and port improvement projects, countrywide expansion of telephone facilities, and the like.

Equipment to complete such projects as these will be needed, as well as construction equipment and consulting services. Continued development and extraction of the country's mineral resources will create increasing demand for mining equipment.

Until the political climate improves and confidence is restored, an early surge of new investment, whether domestic or foreign, does not seem likely, although opportunities do exist. However, the current upswing in what is basically an extremely sound economy should soon necessitate expansion of existing local investment and replenishment of inventories.

There are other opportunities as well for American exporters, not directly related to rural development or construction. There are expanding markets for a wide range of consumer goods, mainly in the Bangkok metropolis, as well as for office equipment, scientific instruments, printing and graphic arts materials, and hospital and medical equipment. American exports to Thailand have continued to increase over the past several years, and there is every reason to believe that this trend will continue.

Thailand is not yet ready for the most sophisticated of equipment, but it is clearly moving steadily in that direction and U.S. companies which have developed relations with local agents and the local market will be in the best position to benefit when that time comes.

ITALY REINSTATES SURTAX

The Italian Government announced, effective Oct. 25, the reintroduction of a surtax on virtually all purchases of foreign exchange. The surtax is similar to the measure that expired on Oct. 18, but has been reduced from 10 to 7 percent. This new measure will be in effect for a maximum of four months, with the possibility of a reduction of the rate or elimination of the tax before the maximum time if economic conditions permit.

The following exchange transactions are among those exempt from the surtax: imports of wheat (BTN No. 10.01); imports of daily newspapers and periodicals; imports of artificial kidneys; imports of blood-derived products; foreign disinvestments and net income from foreign investments in Italy; purchases abroad of supplies for Italian ships and aircrafts; and remittances of savings from wages and salaried income of temporary residents in Italy.

ANCOM: CHILE WITHDRAWS, FIVE EASE RESTRICTIONS

Chile withdrew formally from the Andean Common Market (ANCOM) on Oct. 30 after a failure to reach agreement on foreign investment and import tariff issues. Unresolved differences between Chile and the other five members centered on Chile's desire to attract foreign investors under much less restrictive conditions than those acceptable to the other members, and Chile's request for relatively low import tariff levels.

In withdrawing, Chile renounced all rights and obligations, except those included in Decisions dealing with ANCOM Double Taxation (40), Regional Multinational Enterprise (46), Highway Transport (56), Andean Road Transport (94).

The remaining five members—Bolivia, Colombia, Ecuador, Peru and Venezuela—adopted measures to liberalize restrictions on foreign investments in accordance with previous recommendations made by the five in the Declaration of Bogota. Decision 103 of the Commission provided, among other things, the following modifications in Decision 24, the Andean Foreign Investment Code:

- An increase from 14 to 20 percent in profit remittance levels; higher levels may be set by individual governments;
- An increase from 5 to 7 percent in the annual permitted rate of automatic reinvestment;
- A ruling that regional investments are to be considered as "national" capital for purposes of profit remittances and capital repatriation.

In other decisions, the Andean Commission adopted further significant measures relating to import tariffs and the assignment of industry under Sectoral Program for Industrial Development (SPID) as follows:

- Fixed the common external tariff (CXT) at a minimum of 60 percent with some higher exceptions for Bolivia and Ecuador; the average CXT is to be reduced from present 40 to 28 percent;
- Extended to December 1978 the period by the end of which a CXT schedule must be approved;
- Extended from 1985 to 1988 the deadline for completion of the entire trade liberalization program;
- Set June 30, 1977 for agreement on SPID's already under review (automotive, steel, electronic and fertilizer) and Oct. 31, 1977 for additional SPID's; concurrently, the Commission set a deadline of March 31, 1977 for approval of a special assistance program for Bolivia;
- Extended to December 1978 the period to maintain in reserve those products which might be included eventually in a SPID (products while in reserve are not subject to intra-Andean tariff cuts or the CXT).

Calendar For World Traders

Nov. 30-Dec. 1—New York—World Trade Institute seminars on Reducing Cross-Cultural Problems in Saudi Arabia, and Selling Through Foreign Procurement Programs.

Dec. 6-8—Ann Arbor—Seminar on Investing and Selling in Latin American Markets. Sponsor: University of Michigan, Graduate School of Business Administration, 313-763-1387.

Dec. 6-10—New York—American Management Associations seminar: How to Export From the United States.

Dec. 7 — Milwaukee — Export Financing Workshop, with advisors from FCIA, banks and export firms. Reservations: 414-224-3473.

Dec. 7 — New York — FCIB Roundtable Conference on International Finance, Credit, Collection and Exchange Problems, Summit Hotel.

Dec. 8—Charlotte, N.C.—Seminar on Doing Business in Venezuela, S&W Cafeteria. For information: Ms. Linder, 704-392-4116.

Dec. 9—New York—Overseas Automotive Club luncheon meeting, Summit Hotel.

Dec. 12—New York—World Trade Institute conference on Middle East. George Beck of the Commerce Action Group for the Near East will speak.

Dec. 15—Philadelphia—Seminar on Doing Business in Venezuela. For information: Thomas J. Murray, 215-597-2850.

Dec. 15—New York—FCIB Book Exporters Credit Group Christmas meeting, Summit Hotel.

Dec. 16—New York—FCIB Drug, Chemical & Food Export Club Christmas meeting, Summit Hotel.

INTERNATIONAL BUSINESS REPORTS

Principles and Techniques in Exporting. Published by the International Trade Club of Chicago. Sixth edition. $15.

The text of this practical manual on exporting procedures is used in connection with the club's annual seminar on Principles and Techniques in Exporting conducted each fall.

Write: International Trade Club of Chicago, 310 South Michigan Ave., Chicago, Ill. 60604.

The Political Economy of East-West Trade. By Connie M. Friesen. September 1976. 203pp. $18.50.

Subjects discussed include changing perspectives in U.S.-Soviet trade, COMECON and East-West trade, West European trade, infrastructure of East-West trade, East-West trade in computers, petroleum and natural gas, and chemicals, Soviet-U.S. grain trade, and effects of detente on East-West trade.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

The Indonesia Letter. Monthly, 8pp., plus special report. $175 per year.

A monthly analysis of economic, political, and social developments and trends in Indonesia. Appraises personalities and bureaucracy which deal with foreign companies operating in Indonesia, and analyzes social patterns and problems affecting long-term stability. The next few years will bear close watching as to how the Indonesian leadership copes with problems like Pertamina debt servicing, elections, decline in foreign investment, growing pressures for a more equitable distribution of wealth, and the unique challenges facing foreign companies doing business there. Features regular reports on the current status of these and other areas of concern.

Write: W. G. Douglas, The Indonesia Letter, P.O. Box 54149, Los Angeles, Calif. 90054.

U.S.-Soviet Trade Is Topic

Commerce's Bureau of East-West Trade recently published **American-Soviet Trade: A Joint Seminar on the Organizational and Legal Aspects**, a compendium of presentations made by Soviet and American delegations at a seminar in Moscow last December.

The eight USSR papers discuss regulation of exports and imports in the Soviet Union, organizations involved in industrial cooperation, the legal status of Soviet foreign trade organizations, credit and finance in USSR foreign trade, and problems in Soviet-American commercial contracts. The U.S. presentations include reports on customs and tariffs, market disruption, export controls, labeling requirements, and financing regulations.

Further information and copies of this publication may be obtained by calling 202-377-4655 or by writing: USSR Affairs Division, Bureau of East-West Trade, Room 4323, U.S. Department of Commerce, Washington, D.C. 20230.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, visits by foreign buyers and officials, and major construction and expansion projects.

Licensing, Investment Abroad

1500, 1600, 8911—AUSTRALIA—Firm desires joint venture with U.S. company active in **construction and/or engineering.** Established 1947, company has 70 employees; offices in New South Wales, Queensland, Papua New Guinea. Areas in which company has undertaken projects include steelworks, power stations, coal handlers, timber mills, sugar mills, palm and oil plants. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76912.

1500—NIGERIA—Recently established **construction firm** seeks U.S. joint venture partner to provide management and technical expertise. Additional information from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76911. OPIC.

2022, 2024—VENEZUELA—Manufacturer of butter seeks know-how for expansion to production of **cheeses and ice cream** and other derivatives of cream. Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76887.

2400—CHILE—Chilean Development Corporation is prepared to sell shares of stock in two local firms. One, Celulosa Arauco S.A., produces long fiber, bleached draft cellulose with 120,000 M.T. annual capacity. Also owns extensive forest stands in Arauco Province. Associated company, Empresa Forestal Arauco Ltda., provides raw materials and exports sawn wood. Specifications may be obtained at: CORFO, Moneda 921, Of. 822, Santiago, and cost $127.39 for each industry. Offers must be sent in duplicate and in sealed envelope, addressed to: Ministro Vice Presidente Ejecutivo de CORFO, Moneda 921, Of. 825, 8 Piso, Santiago. P-76902. OPIC.

2152, 3448—FRANCE—Seeks license to manufacture **prefabricated buildings of light materials such as wood or metal,** that are easy to ship and easy to assemble by unskilled labor. Company is engineering firm established in 1917, with 150 employees and annual volume of 16 million francs. M. Jean Jacques Walter, Secommet Cercelet Sibille, Rue Frederic Joliot, Zone Industrielle, 13290 Les Milles. P-76914.

2621, 2611—THAILAND—Firm planning to produce **newsprint and pulp** in Thailand, seeks an investor to provide $1.6 million and technology in exchange for 23 percent equity and management participation. Company was organized in 1967 with authorized capital of $7 million and plans to expand its capitalization to $14 million. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. WTDR. P-76903. OPIC.

2649, 3079—AUSTRALIA—Seeks new technology through license or joint venture to **produce paper and plastic packaging and industrial materials.** Firm is most interested in advanced injection molding techniques, whether or not patented; also, innovative packaging techniques. Is well established packaging firm looking to new markets. C. G. Garnsworthy, Mgr., United Packages Ltd., Ashover Road, Rocklea, 4106, Queensland. WTDR. P-76896.

2819—ITALY—Seeks technology to produce **amorphous precipitated silica** for use as filter for rubber, pharmaceutical and agricultural chemicals industries. Established 1968, firm had 1975 sales of $2 million, mostly products exported to EEC and Eastern European countries. Manufacturers colloidal silicon compounds, water treatment chemicals, refractory powders. Andrea de Leone, Sales Mgr., Kempro Italiana S.p.A., Via Pienza 251, 00138 Rome. WTDR. P-76904.

2834—NETHERLANDS—Seeks licenses to manufacture and sell **ethical or over-the-counter pharmaceuticals and products related to pharmaceutical industry.** Firm employs 150, produces vitamin preparations, pain relievers, stomach medications. Has subsidiaries in Europe, Turkey, Mexico. R. S. Cortissos, Int'l. Mktng. Mgr., Roter Pharmaceutische Fabriek CV, P.O. Box 502, Arendstraat 3, Hilversum. P-76905.

2869, 2899—UNITED KINGDOM—Seeks technology to manufacture **foundry chemicals, synthetic resins, photographic chemicals, food additives, synthesized pigments and inorganic salts.** Firm has 44 employees, annual sales of 1 million pounds. Produces and exports various chemicals to Europe, Australia, Africa. Is part of Green's Economiser Group Ltd., established in 1845. J. C. Leadbetter, Sales Mgr., E. Green & Son Brotherton Chemicals Ltd., Calder Vale Road, Wakefield WF1 5PF, England. P-76898.

2951, 2372, 3281—NIGERIA—Seeks technically competent American partner to develop an industrial complex for **processing asphalt, crushing stone, and production of precast concrete for roads and bridges.** Firm desires quotations on following: large asphalt processing machines, large concrete batching machines, stone crusher and compressor and quarry equipment. For further details contact Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76919. WTDR. OPIC.

3079—GERMANY—Seeks licenses to produce and market **extruded polyethylene products (films, foils, sheets) and related equipment, for use in industrial packaging and materials handling; farming, gardening and grape growing; and camping and leisure.** Firm also offers to license its technology in these fields to U.S. companies. Established in 1828, firm is a leading West German polyethylene manufacturer with staff of 500, yearly sales of $41 million. Klaus Peter Nohr, Mktng. Dept., Polydress Plastic GmbH, Postfach 3209, D-6120 Michelstadt. Telephone, 060601-771; telex, 04191618. P-76924.

3079—GERMANY—Manufacturer of tire remolds, part of large German company, is interested in joint venture aimed at converting its plant to new line of production. Company feels ideal **basic material** would be **plastic, perhaps asbestos.** Firm has excellent distribution throughout Germany. For further information contact Ms. Doris Atkind, Trade Promotion, European-American Bank & Trust Co., 10 Hanover Sq., New York 10015; telephone, 212-437-4300. P-76917.

3079—NIGERIA—Seeks joint venture with U.S. firm to produce **PVC pressure pipes and sewage pipes.** Firm seeks financial assistance, machinery, technical know-how. Company does civil engineering contracting and building, manufactures precast concrete transmission poles. Employs 125, has a good reputation. N. M. Yacoob, Mng. Dir., Yacoob & Sons, Ltd., P.O. Box 1249, Ibadan. P-76888. OPIC.

3272—GERMANY—Seeks technology to produce **novel, prefabricated concrete building components.** Founded in 1956, company employs 50, and has annual sales of $2.4 million. Manufactures prefabricated concrete roof sections, wall panels, stairs, floors, chimneys, fence posts. Wolfram-Peter Konrad, Arthur Konrad KG, Betonwerk, Homfelderstr. 338, 3094 Bruchhausen-Vilsen. P-76899.

3272—MEXICO—Seeks technology to manufacture **prefabricated elements for irrigation systems.** Firm is small construction company, with capital of 1 million pesos. Correspondence may be in English. Ing. Rodolfo Lara Samperio, Constructora Keops, S.A., Rio Elba No 10-201, Mexico 5, D.F. P-76889.

3275, 3296—GERMANY—Manufacturer of **acoustic materials** for construction industry, **bituminous foils with mineral (mica, asbestos) filler and stamped parts for heat and noise insulation** in various products, seeks licensing and/or reverse licensing arrangements with U.S. companies active in same field. Firm is particularly interested in production of heat insulating materials in range of −30° C to +220° C. Also produces deadener sheets for automotive and household ap-

pliance manufacturing industries. Erhard Sachse, Mgr., Chemie-Werke Weinsheim GmbH, Zollhaus, 6520 Worms-Weinsheim. P-76923.

3312—CHILE—Large **tin plate container** manufacturer seeks technical assistance to improve its production needs. Company presently manufactures variety of tin plate products and containers, plain and lithographed. Also represents several firms in printing machinery, inks, etc. Huberto L. Rosenzweig, Gen. Mgr., Neumann S.A.C.I., Av. Pedro Aguirre Cerda 5445 (Cerrillos), Casilla 2135, Santiago. P-76890. OPIC.

3423, 3469—UNITED KINGDOM—Established firm presently manufacturing precision tools and hand tools, seeks licensing arrangement to manufacture **hand tools, garden tools, kitchen utensils, or other light engineering projects.** Firm has representatives in several other countries. Employs 200. Alfred Goldman, Chmn., Leytool Ltd., Leytool Works, High Road, Leyton, London E10 6RW, England. P-76900.

3443—BELGIUM—Affiliate of large West German manufacturing group is interested in licensing and/or joint venture to manufacture **metal tanks, pressure vessels, compressed air equipment and tractor and crawler undercarriages.** Firm has extensive capabilities, is open to other propositions. Is also equipped to undertake contract manufacturing or overhauling. J. Beets, n.v. Henschel Engineering, Boomsesteenweg 604-606, B-2610 Wilrijk-Antwerpen. P-76906.

3443, 3662—BELGIUM—Firm seeks licensing and/or joint venture with U.S. firm for manufacture as subcontractor of custom-made and standard **welded tanks** (in stainless steel, refractory steel) for packing injection under full line pressure. Users are petro-chemical firms, cement factories, nuclear plants, etc. Company also is interested in starting new line of manufacture in following: **radar scanners and microwave components; antennae structures and towers; parabolical antennae and transmission systems.** J. Lempereur, Industriel, Chaudronnerie de Retinne, Rue Liery 54, B-4621 Retinne. Telephone, 041 58.58.55, 58.45.26; telex, 42182. P-76907.

3500—GERMANY—Firm seeks licenses for manufacture of **sludge treatment and conditioning equipment for sludge** originating from residential and industrial waste water, and **equipment for treating organically loaded waste water,** such as micro strainers, digested sludge pasteurization plants, thickening and dewatering plants, sieves and hydrosieves, sand washing devices and presses for screenings. German company is manufacturer of equipment for water treatment and conditioning for residential and industrial waste water. Dieter-Peter Voll, Mgr., Schuler-Stengelin GmbH & Co. KG, Ober, Vorstadt 21, D-7200 Tuttlingen. Telex, 762 689; telephone, 07461-5073. WTDR. P-76921.

3530—BELGIUM—Large heavy machinery manufacturer seeks licensing arrangements to produce **complete cement plants, machines for iron ore pelleting, large gear boxes, pumps and valves (large size), other heavy machinery.** Firm is a major arm of Group SOEDMECA, which is 65% owned by Belgian Government institute SNI. Group's annual sales volume is about $60 million; employs 2,500. Firm presently makes packing presses, butt-welding machines, turbines, grinding mills, pipe making machines and wide range of industrial equipment. Albert P. Schaaps, Commercial Dir., Ateliers De Construction De La Meuse, 4200 Sclessin, Liege. Telephone: 041.52.00.30; telex, 041282. P-76913.

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

3530—UNITED KINGDOM—Seeks licensing agreements to manufacture **bulk solids handling and processing machines** such as dryers, mixers, sieving screens, bag opening machines or similar such equipment—could include separation and drying equipment for slurries. Presently, company makes silo discharging machines, screw conveyors, metering feeders for powders and related equipment. Has about 150 employees. Is subsidiary of Simon Engineering Ltd., which employs 10,000, has worldwide interests. R. L. Jones, Tech. Mgr., Simon-Solitec Ltd., Bristol Road, Gloucester GL2 6BY, England. P-76920.

3531—JAPAN—Firm seeks technology to manufacture **3-ton capacity hydraulic floor jacks also known as garage jacks.** Company manufactures automotive maintenance equipment, such as automobile lifts, two-post lifts, one-side lifts and wheel balancers, and material handling equipment. Employs 250. Kiyoo Fukui, Dir., Foreign Trade Dept., Sugiyasu Iron Works Co., Ltd., 8 Kamihata, Takatori-cho, Takahama City, Aichi Prefecture 444-13. Telex, 4545784 SUGYA; phone 0566-53-1126. P-76891.

3536, 3531, 3714—INDONESIA—Large government-owned metal-working and engineering company is interested in joint venture or licensing arrangement to produce **crawler tractors, bulldozers, transportation cranes, wheel loaders.** Company produces road rollers, rock crushers, fluid tanks, etc. Has foundries in Surabaya and Jakarta, is currently building another in Gresik, East Java. Is also interested in receiving proposals for manufacture of **automotive equipment and spare parts.** Colonel I. Suseno, Pres. P. T. Barata Metalworks & Engineering, Jalan Ngagel 109, Surabaya. P-76892. OPIC.

3551—GERMANY—Seeks technology to manufacture **machinery and equipment used in breweries, chemical plants and fruit processing plants.** All types will be considered. Firm was founded in 1919, has 180 employees, annual sales of $5.3 million. Mrs. Peckelhoff, Hans Kock-Hakolb-Werke, Falkenstr. 31-35, 24 Luebeck 1. Telephone, 0451/41171; telex, 026821. P-76909.

3551—UNITED KINGDOM—Manufacturer of wrapping, bottling, labeling and cartoning machinery seeks licenses to produce any type of **packaging equipment.** Firm employs 600. N. H. Clark, GEI Packaging Machinery Ltd., 81 High St., Marlow SL7 1AB, England. P-76916.

3567—SPAIN—Established firm, engaged in manufacture of industrial furnaces, frequency induction furnaces and boilers, seeks licensing arrangement to manufacture **furnaces for process of melting-by-induction.** For further information, contact Ms. Doris Atkind, Trade Promotion, European-American Bank & Trust Co., 10 Hanover Sq., New York 10015; telephone, 212-437-4300. P-76918.

3569—FRANCE—Seeks license to manufacture and market **industrial paper shredding machines.** According to French concern, there is strong demand for this equipment among its customers. Presently, firm makes industrial machinery, employs 32. Thierry Chavanon, Commercial Engineer, Ateliers Mecaniques R.V., 46 Rue de Bronzac, 94240-L'Hay-Les-Roses. P-76893.

3569—GERMANY—Production facilities of company in receivership are for sale. Modern, well equipped plant has direct connections to German Federal Railroad System. Rechtsanwalt Dr. Volker Grub, Herdweg 74/1, D-7000 Stuttgart 1. Telephone: 0711/221414. Brochures (in German) describing operations of Maschinenfabrik Ludwigsburg are available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76910.

3589—MEXICO—Local business consultant seeks license or joint venture to produce **microwave ovens.** He believes there is substantial domestic market for such ovens. Seeks technical know-how in return for fixed fee. Ing. Max Blok, Av. Cuauh Emoc 560-105, Colonia Narvar E., Mexico 12 D F Telephone: 905 519-6964, 519-5178. P-76915.

3600—GERMANY—Seeks licensing agreements for manufacture of **machines for electrical and electronic industry; automobile industry; packaging industry; defense techniques (NATO),** including controls, electric pneumatic, hydraulic or mechanical. Firm is noted manufacturer of various machinery and attachments and maintains efficient development department specialized to meet customer desires. Klaus von Zeppelin, Mgr., Hermann Kneissler KG, Saenger Str. 24, P.O.B. 229, D-7230 Schramberg/Schwarzwald. Telex, 0700820; telephone, 07422/6066/67. WTDR. P-76922.

3651—HUNGARY—Manufacturer of loudspeakers and Hi Fi equipment seeks license to manufacture **horn-type loudspeakers** with either pressure chamber or pneumatic driver for speech-transmission in the 300 Hz to 3400 Hz frequency range, with power handling ca-

pacities of 100 w. to 10 kw. Full technical documentation, description of technology, drawings of jigs and dies used in production, are also needed. A. Geszti, Project Mgr., LICENCIA, P.O. Box 207, 1368 Budapest. Telex, 225872. P-76901.

3728, 3599—**BELGIUM**—Small firm seeks licensing and/or joint venture arrangement to produce **fabricated aluminum and metal parts.** Company presently manufactures aluminum window frames for trains, trucks and buses, and also seats for mass transit facilities. Jacques Pecriaux, Administrateur Delegue, Widney Europe S.A., Rue de Sotriamont 2, 1400 Nivelles. Telephone, 067. 22. 20.76; telex, 57423. P-76897.

7391, 7392—**FRANCE**—Consulting firm specializing in **contracting research and development programs** for private firms and Government of France agencies is interested in establishing contacts with similar U.S. firms. Firm has experience in electronics, electrical apparatus, electric motors, energy transmission and food products. Ferdy Mayer, Pres., Laboratoire d'Electronique et d'Automatique Dauphinois (LEAD), 18, rue Thiers, 38000 Grenoble. P-76894.

7393—**CANADA**—Small, privately owned company supplying all forms of **security in airline, industrial and diplomatic fields,** is looking to large expansion in Canada. Firm seeks investment by way of stock acquisition or merger with U.S. company operating in similar field. Established 1973, company has 80 employees. T. A. Pickup, Pres., A.I.D. Security Canada, Ltd., 223 McLeod St., Ottawa, Ontario K2P 0Z8. P-76895.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-5361), referring to the appropriate file number.

FRANCE—Marseille company is interested in joint venture with U.S. firm for manufacture in U.S. of Guille line of high-quality **socks, stockings, knitted sweaters, jackets, shirts, T-shirts, swimming suits for children** (up to 18 years). U.S. Patent No. 3663272 on "sockers" (sock with sole). File 3169.

FRANCE—Large Lyon company is seeking U.S. license joint venture partner to produce in U.S. its **seamless gas cylinders and containers.** Company reports excellent penetration of European market and has gained strong foothold in some developing countries; claims its technology surpasses standard welding techniques. File 3170.

GERMANY—Karlsruhe-Durlach company seeks American licensee for production in U.S. of its **revolving parking system.** This turntable system offers space for 24 automobiles as compared to 14 in conventional parking lots of same area. File 3171.

GERMANY—Duesseldorf company wants to locate U.S. licensee for manufacture in U.S. of all-weather **protective shelters (tents)** for construction industry. Firm's product is reported to be of high quality material with complete transparency, is easily and rapidly assembled and provides hermetically closed sphere. U.S. Patent No. 3805816. File 3172.

GERMANY—Well reputed Stuttgart firm offers its **dry-operating compressor** TV 7000 G for industrial and agriculture application. Firm, engaged in development, manufacture and distribution of pumps, compressors, and agricultural machines, seeks U.S. licensee and is open to negotiations on terms. File 3173.

GERMANY—Frankfurt firm seeks U.S. licensee for its **freeze dryers, magnetic stirrers for large vessels, automatic dilution apparatus, and light thermostats** for chemical and pharmaceutical industries and laboratories. File 3174.

GERMANY—Duesseldorf firm seeks potential U.S. licensee for manufacture of its multi-variable **air-conditioning installations** consisting of two units for schools, administrative and other public and commercial buildings. File 3175.

GERMANY—Hamburg manufacturer is seeking U.S. **bottler and marketeer** to join with him on licensing or franchising basis to sell Kola drink. File 3176.

GERMANY—Weisbaden-Erbenheim manufacturer wants cross-licensing for manufacture and distribution of **numerical controls for machine tools.** File 3177.

GERMANY—Stuttgart company offers for production under license in U.S. its newly developed unbreakable **plastic containers used in mailings,** especially those in which container will eventually be returned to sender. Many varieties. File 3178.

SWEDEN—Goteborg inventor offers for manufacture in U.S. his **plastic Christmas tree holder,** featuring device that locks or releases tree trunk through pedal operation. Patent pending. File 3179.

SWEDEN—Huddinge company seeks U.S. firm to manufacture under license and distribute in U.S. its **demountable bed system** for use in hospitals. System with beds of simple design, compact, light weight, permits rational tidying-up work in sickroom. File 3180.

SWITZERLAND—Zurich company offers for manufacture in U.S.: (1) **fiberglass die** (punching or cutting tool) (SIC 3423/3079)—body of fiberglass-resin, patent pending; (2) **tool (die) of concrete** for cutting by heat of thermoplastic foil, plexiglass, hard PVC plates, polyurethane foam, and some foam rubber, patent pending; (3) **polyester-resin,** reinforced with fiberglass sign-making process that can be an innovation in manufacture of traffic signs and licenses for automobiles, as well as advertising signs. File 3181.

SWITZERLAND—Businessman in Zurich is offering (1) **process for manufacture of railroad ties through re-cycling of used automobile tires**—ties, reportedly noise-absorbent and elastic, have been tested with good results; and (2) improved **system for fixing and adjusting rails on railroad ties.** Screws and fixtures can be manufactured in either hot rolled or drop forged process. Invention won award at Geneva inventors' fair. File 3182.

SWITZERLAND—Luzern manufacturer is seeking U.S. licensee to produce in U.S. the Swiss firm's **filling, sealing and sterilization equipment.** Is used in filling and sealing plastic yogurt cups and other dairy products; can be used with liquids, viscous and powderous materials, pastes. File 3183.

SWITZERLAND—Zurich inventor is offering for manufacture in U.S. his **lamp ballast for gas discharge lamps.** Advantages claimed are higher power, greater efficiency, and increased operational time as well as considerable reduction or elimination of stroboscopic fluctuation of luminous flux in gas discharge to reduce eye-fatigue. File 3184.

Large Hungarian Firm Seeks Partners In Third Markets

A large Hungarian company in the construction industry seeks cooperating partners for executing in third markets the mounting, construction and other tasks in investment projects of the chemical industry, oil industry, natural gas processing industry, petrochemical industry, power plant construction, pharmaceutical and food industries. The Hungarian partner would undertake the following tasks: structural and civil engineering, bridges, interconnecting roads, railway tracks, mounting at site of steel constructions, installation work; prefabrication and assembling at site of technological ducts, and equipment such as tanks, water treatment equipment, manufacture galvanization or other surface treatment of steel structures, heat insulation, fitting, electrical mounting and instrumentation; manufacture of equipment, such as heat exchangers, water treatment equipment, tanks, silos, mixers, chippers and equipment for the oil industry. In connection with the above activity the Hungarian partner would readily accept the cooperating partner's new technologies, methods, systems and machinery, especially in the mounting of steel structures, the manufacture of concrete, cradling and scaffolding. Contact Gy Gonda, Intercooperation Co., Ltd., P.O. Box 53, H-1253 Budapest 1.

Rhine-Rhone Canal Planned

The Compagnie Nationale du Rhone (CNR) is going ahead with plans to develop a 230 km.-canal connecting the Rhone and Rhine rivers. CNR, a French government entity controlled by municipalities along the Rhone and Paris, has been designated as general contractor for this $1.5-billion project. Construction of the canal, with 24 locks and designed to accommodate barges of 4,000-5,000 tons, is expected to take seven to ten years. The project has received French Government approval, subject to "a survey of ultimate public benefit," and acquisition of land should be completed during 1977.

The project is intended to modify the economy of southeastern France by providing direct water communications between the Mediterranean and North Seas with linkage to the German Rhine-Elbe-Donan waterway network. The canal is also intended to spur development of French heavy industries, including metallurgy and chemicals. While the project has not yet reached the stage where it provides specific potential for American exporters, the U.S. Consulate General in Lyon expects to follow developments and report on trade opportunities that may arise.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Department's Export Administration Regulations. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Wood products

• **24910—CYPRUS**--Electricity Authority is inviting bids for 6,400 creosoted wood poles of various sizes. Applicants should reply to S. G. Anastassiades, Chief Engineer and General Manager, Electricity Authority of Cyprus, P.O. Box 4506, Nicosia. Tender documents may be obtained from above address. Copies of tender invitation and brief description of contract work may be obtained from U.S. Department of Commerce, Construction & Forest Products Division, Room 2120, Washington, D.C. 20230; 202-377-3354. Bid deadline Dec. 15.

Public building, related furniture

• **25300, 35700, 36600—HAITI** — Ministry of National Education invites foreign contractors to submit applications to prequalify for bids to supply following equipment and supplies for National Office for Community Development and Elimination of Illiteracy (ONAAC): audiovisual equipment; office and printing equipment; serigraphy and drawing equipment; school furniture; vehicles with audio-visual equipment including sound trucks and office supplies. Project will be financed within framework of Credit Agreement 618 HA between government and IDA. Bid documents available for $10 from Project Office, Ministere de L'Education Nationale, Cite de l'Exposition, Port au Prince, prior to submitting offers. Bid deadline Jan. 14. Refer to Education Project No. 1.

• **25300, 35700, 36300, 36600 — ECUADOR**—Ministry of Agriculture and Livestock announced they will soon issue invitation for bids for furniture, refrigerators, typewriters, calculating machines, and audio-visual machines and supplies. This is in conjunction with a nationwide campaign against foot and mouth disease. Financing of program, including above supplies, will be provided by Inter-American Development Bank. Further information will be supplied to any interested firm or individual by the Programa Nacional de la Fiebre Aftosa, Calle Guayaquil 1740, Quito. Invitations to bid will be published in national newspapers. U.S. firms must have Ecuadorian agent, citizen, or legally established resident, to participate in government bids. If you do not have a representative, contact nearest U.S. Dept. of Commerce District Office.

Drugs

28310, 28330—AUSTRALIA — Commonwealth Serum Laboratories requests offers from U.S. firms relative to direct use, distribution, and licensing arrangements concerning medical diagnostic agents and tissue culture media. Write C/O American Consulate (Melbourne), U.S. Department of State, Washington, D.C. 20521.

Gum, wood chemicals

28340, 28440, 28600 — UNITED KINGDOM—Well-known manufacturer and distributor of toiletries, semi-ethicals, and industrial chemicals, with 1,500 employees and sales force of 100, wishes reciprocal trade and manufacturing opportunities with U.S. firms. Products to be considered must have potential for wide distribution and good sales growth. Contact H. T. Langdon, Secretary, Cussons Group Ltd., Kensal Vale, Manchester M7 0GL.

Steel mill products

• **33100—INDIA**—Soft iron strips of sizes 110 mm x 175 mm and 145 mm x 4 mm in straight lengths of 2,000 mm and soft iron bar 16 mm tolerance of size 1.71 mm in straight length of 2,000 mm. Tender No. CON/ENQ/128; bid deadline Dec. 22. Directorate General of Supplies & Disposals, Parliament St., New Delhi 110 001. Tender documents available from India Supply Mission, 2536 Mass. Ave., NW., Washington, D.C. 20008, at $3.35.

• **33100—PHILIPPINES**—1,900 pieces of V-type steel sheet piles and corner steel piles ranging from 10 to 16 feet long. Bid deadline Jan. 4. National Irrigation Administration, Special Projects Office, 6th floor, NIA Bldg., National Government Center, Epifanio de Los Santos Avenue Diliman, Quezon City. Cable: Niaphil, Manila. Tender documents available from above address at $10 per set.

• **33100—MALAYSIA**—25,000-45,000 tons of 80 lb. flat bottom, medium manganese steel rails. Bid deadline Jan. 19. Malayan Railway, Sentul, Kuala Lumpur 13-09. Tender documents available from above address at M$100 (US$1 equals M$2.50).

• **33100—NICARAGUA** — Supply and installation of 3,500 ft. steel pipeline, 18 in. diameter; also valves, accessories. Bid deadline extended to Jan. 4. Empresa Nacional de Luz y Fuerza, Apartado Postal 55, Managua. Tender documents available from above address or from Kuljian Corp., 3624 Science Center, Phil., Pa., for $100.

Rolling & drawing of nonferrous metals

• **33500—ZAIRE** — About 70 kilometers of medium tension cables for transmission of energy, insulated by non-conducting solid extrusion. Bid deadline Dec. 15. Gecamines, BP450, Lubumbashi. Tender documents available from above address.

• **33500—THAILAND**—12,000 meters of 600 volt control cable, polyethylene type; 5,000 meters of 600 volt control cable, No. 4/0 AWG; 4,000 meters of 600 volt copper cable, No. 500 MCM; 4,000 meters of 600 volt copper cable, No. 750 MCM. Tender No. ADB-MEA-302; bid deadline Jan. 18. Metropolitan Electricity Authority, 121 Chakpetch St., Bangkok 2. Tender documents available from above address at $5 per set.

Nonferrous foundries

• **33610 — COSTA RICA** — Juan Alfredo Gudino, Jefe, Departamento de Aprivisionamiento, Caja Costarricense de Seguro Social—CCSS, Apartado 10038, San Jose, has issued invitation to potential suppliers of hospital equipment, such as furniture, kitchen utensils, X-ray equipment and films, and medical, surgical, ophthalmic, pharmaceutical and research instruments and apparatus, to apply for listing in organization's register of suppliers. Private bids are solicited directly from firms registered with Institute. U.S. firms which would like to be registered should communicate with Gudino, giving complete company name, address, telephone number and information on product lines.

Farm machinery

352358X—TURKEY—Tomato harvesting machinery & attachments. Planning to import & sell tomato harvesting machinery capable harvesting 400-500 tons tomatos/day. Average yield in Bursa area where machines will be used approx. 70 MT/hectare. Firm initially intending import 1-4 machines ASAP this year. Further purchases may follow if machines satisfactory for use in area. Requests detailed tech. specs both c.i.f. & f.o.b. ASAP. Requests prices to port of Izmir. Reply to Ismail Ekinci, Ataturk Caddesi No. 386/1, Izmir. Tel—142030; cable Ticaret Odasi, Izmir.

Special industrial machinery

3559585—MEXICO—Machinery for manufacture of mattresses & box springs, incl. machine to garnett cotton, to install springs and assemble mattresses & box springs, to sew closed & apply trimming to bedding produced. Reply to Arnulfo Garza, Industrias Principe Kroehler, S.A., Apartado 3967, Sucursal "K", Monterrey, N.L. Tel. 51-41-82.

General industrial machinery

• 35600—**AFGHANISTAN** — Supply, delivery and supervision of installation of pumping equipment. Equipment will include 5 vertical-shaft, single or double-stage pumps with discharge quantity of 3.80 cubic meters per second with four pumps running. Pumping equipment required to pump fresh water from irrigation canal to higher elevation. Power distribution and other electrical equipment needed to make pump station operational. Contract No. G-C-2; bid deadline Jan. 31, at President, Garwargan-Chardarrah Project Department, Water and Power Authority, Block 13, Microyan, Kabul. Project financed by loan from Asian Development Bank. American Embassy in Kabul has one copy of tender specifications. Water and power authority at above address has limited number of additional copies of specifications for distribution. Project consultant is Crippen International, 1605 Hamilton Ave., North Vancouver, B.C., Canada.

• 35600—**BURMA**—Supply of 100 centrifugal pumps with capacity for 200 GPM through 4" outlet. Supply of 20 sludge pumps. Tender No. IRR/IDA/ (3) 76-77; bid deadline Jan. 17. Deputy Director (Stores), Irrigation Department, 8½ Mile Prome Road, Rangoon. American Embassy in Rangoon will forward copies of bid documents and specifications to interested U.S. firms on request, citing "T-0008," as well as enclosing check for $8 per set.

Communications equipment

• 36610—**ETHIOPIA**—Reyene Desta, Gen. Mng., Telecommunications Service of Ethiopia, P.O. Box 1047, Addis Ababa, has issued tender No. 24/76 for supply of private automatic branch subscriber telephone equipment. Bid deadline Dec. 23. Copy of specifications available from above address.

• 36610—**INDIA**—General Manager and Chief Engineer (Transmission), Bihar State Electricity Board, Vidyut Bhawan, Patna 800001, Bihar, has issued tender No. IDA/BSEB/6 for supply of power line carrier and tele-protection devices. Bid deadline Dec. 13. Copy of specifications available from above address for RS100 (US$11.30).

• 36610—**IRELAND** — Engineer-in-Chief, Department of Posts and Telegraphs, Contracts Section, Marlbourough St., Dublin 1, has issued tender No. C/610/1/3; Spec. 5ML/76 for supply, installation, testing and commissioning of 30-circuit pulse code modulation system. Bid deadline Jan. 3. Copy of specifications available from above address.

• 36620—**MALAYSIA** — Director-General of Telecommunications Department, Kumpulan Radio Pemancaran, Telecoms Headquarters Bldg., Jalan Bukit Mahkamah, Kuala Lumpur 05-01, has issued tender No. KPT(RP)300/4 for supply of VHF and UHF multi-channel radio link equipment, a total of eight 120-channel systems, 13 60-channel systems, and 42 24-channel systems. These quantities may be increased or decreased. Bid deadline Dec. 14. Copy of specifications available to local representatives of U.S. firms at address above for M$50 (US$1 = approx. M$2.50).

• 36610—**NEW ZEALAND**—Supply Division, Post Office Headquarters, Wellington 1, has issued tender for supply of telephone instruments. Bid deadline Feb. 18. Estimated value of this procurement US$5 million per year for five years. Copy of specifications available from P. F. Solnik, at above address. Ask for Prospect Information Report 08/76.

Electrical machinery, equipment, supplies

• 36930 — **THAILAND** — Lt. Col. Natte Krapan, Chief of Security Staffs, Department of Civil Aviation, Royal Thai Air Force, Don Muang Airport, Bangkok, has received budgetary approval to procure two baggage X-ray systems and eight hand scanners for use on baggage and passengers. Invitation for tenders will be issued later this year. U.S. firms wishing to bid should request details from Col. Krapan, address above, preferably through local agent.

Engineering, laboratory, scientific, research instruments

• 38100, 38400 — **PARAGUAY** — Dr. Luis A. Vely, Dir., Ministerio de Educacion & Culto, Calle Piribebuy 270, Segundo Piso, Ascuncion, has issued tender No. 3 for supply of miscellaneous equipment for teaching physics, chemistry, science, dentistry, etc. Bid deadline Dec. 14. Approximate cost of entire procurement is US $65,000. Copy of specifications available from above address at cost of Guaranies 10,000.

• 38110—**YUGOSLAVIA**—Prof. Sulciman Spahovic, Pedagoska Akademija, Merije Gupca 18, Mostar, has issued tender for supply of one helium-cadmium laser with accessories for use as teaching aid and for scientific research in physics-optical science laboratory. Laser should operate at wavelength of approximately 440 nanometers (blue) with power output of around 20 milliwatts. Accessories should include lenses, mirrors, prisms and table with magnetic holders. Offers should be submitted to Prof. Spahovic as soon as possible, since academy must spend its allotment of $10,000 before beginning of new fiscal year in January.

Measuring & controlling devices

382XXXX—**INDIA**—Explosion meter to detect explosive condition inside power station high-pressure boiler furnace. Working temperature from 1200 to 1600 degree centigrade should be suitable for both pressurized & balanced draught furnaces; velometer to measure air velocity. To be installed at power generating stations; thermionic valve voltmeter; 0-30 kv; portable clip-on-type ammeter: 0-600 millamps; portable voltmeter to measure active & reactive power of 100 x 200 mw generators; double kelvin bridge; electronic gas leakage detector (at power generating stations); detector for vacuum tightness; portable continuous hydrogen concentration monitor; dynamometer for use with 120 x 200 mw turbines—very heavy duty; stick micrometers; optical level with height gauge; 2-color optical pyrometer; special temperature indicator at high voltage points; voltage surge counter (portable); relay testing kit; ductors ohm meter; smoke testing apparatus; fuel analyzer; psychrometer; ratiometer; hydrogen purity indicator; magnetic polarity checker; flash testing equip.; interturn short detector; polarity tester; continuity torch tester; slip measuring instrument, event recorder; fireproof recorder; discharge detector; optical instrument for alignment; bond meter (portable). Firm making inquiry on behalf of govt. undertaking which mfrs. power generating equip. Reply ASAP to—T. V. Krishnamurthy, Mechtech, 22 Deivasigamani Mudaly Rd., Madras 600014. Tel 87557.

• 38230—**SINGAPORE**—Chou Tai Choong, Chief Water Engineer, Public Utilities Board, Water Department, 5th Floor, Colombo Court Bldg., Singapore 6, has issued tender No. WE 652314/75 for supply of flow measuring instruments and flanged control valves. Bid deadline Dec. 14. Copy of specifications available from Finance Department, Public Utilities Board, 1st Floor, City Hall, Singapore 6, for S$500 (US$205), refundable if tender forms are returned on or before closing date.

• 38240—**SINGAPORE**—Chou Tai Choong, Chief Water Engineer, Public Utilities Board, Water Department, 5th Floor, Colombo Court Bldg., Singapore 6, has issued tender No. WE 652237/1/75 for supply of 108,000 water meters, 15 mm, required by Water Department for three-year period 1977-1979. Samples for testing should be sent to Water Board before Dec. 23. Only firms whose meters are found to comply with requirements will be permitted to bid.

Surgical, medical, dental instruments

• 38420—**SRI LANKA**—Chairman, Tender Board, Department of Health, P.O. Box 584, Colombo, has issued tender No. COM/TEN/76/271 for supply of elastic bandages, zinc oxide self-adhesive plaster, and extension plaster. Bid deadline Dec. 14. Copy of specifications available from Embassy of Sri Lanka, 2148 Wyoming Ave., NW, Washington, D.C. 20008.

Pens, pencils, office, artists' materials

• 39590—**SRI LANKA**—Raw materials for manufacture of dry-cell batteries (a) 39,742,000 pieces of carbon rods (electrodes) in three sizes, (b) 140 metric tons acetylene black conforming to three different specifications, (c) 492 KGS mercuric chloride, (d) two types of ammonium chloride (non-caking and standard quality) totaling 385 metric tons, (e) 4 metric tons of zinc oxide and (f) 3 metric tons of rosin wax. Reply to S. Aludeniya, Gen. Mgr., Ilanka State Trading Corp., P.O. Box 1686, 119 Wekande Road, Colombo 2. Tender 1/76/21. Tenderers should quote f.o.b. and c. & f. Colombo prices separately; preference to those who quote same rates. Payment by irrevocable letter of credit. Indicate deferred payment terms available. State packing and delivery of each item. Forward tenders in duplicate to S. Aludeniya. Estimated purchase value is $463,140.

Used merchandise

5931XXX—**SWEDEN**—Roller skates, second hand; also interested in franchising of roller skating rink operation with complete equip. Small co., estab. 1975. Has share capital of Skr. 50,000. Represents number of foreign firms & sells in Sweden (60 percent), Denmark (10 percent), Norway (10 percent) & other countries. According to local credit sources, co. is financially sound & has met payments promptly. Reply to Willy Eder, Mng. Dir., Intershipments AB, Box 7053, S-161 07 Bromma. Telex: 172 80 Triadan S. tel.: 08 87 09 90.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Coal

1211XXX—PAKISTAN—Agency for sale of bituminous coal to produce metallurgical coke for use in steel mills. Annual sales potential 300,000 to 500,000 m.t. Firm is medium-size importer and sale indent agent of coal, iron and steel, fertilizers, pesticides, electric and gas meters. Imports from Japan, Australia and U.K. Wishes to act as agent for coal dealers. Claims very good contacts in public and private sectors. Marketing territory all Pakistan. Annual sales US$1 million. Employs 10. Reply to—Qamar Ahmad, Dir., Iesho Pak Ltd., 44 Farid Chambers, Abdullah Haroon Road, Karachi. Cable "Kapohsei" Karachi; tel 510840 and 514746.

Pottery, related products

3231633, 3229125—AUSTRALIA—Novelty glassware—hand-made & machine-made; ceramic ovenware; Estab. 1946, employs 30, imports from Japan, Korea, Hong Kong, Italy, France & U.K. Trade ref: Polarizers, Inc., 1500 Spring Garden St., Phil., Pa. 19101. Requests prices c&f. Reply to—John M. Petterson, Mng. Dir., Wolkenberg Intl. Pty. Ltd., 374 Nicholson St., Fitzroy, Victoria 3065. Cable Elwol Melbourne; telex AA33705; tel 03-41-5059.

Steel mill products

3315951—THAILAND—Galvanized barbed concertina wire with core of hardened spring steel of high tensile strength covered with barbed tape, size: 955 mm. in dia., extended length 13 to 15 meters. Requires 900 bundles of 55 rounds ea. Ea. bundle to weigh about 15 kgs. U.S. specification: part No. FSN 5660-921-5516. Wishes supply above to Ministry of Defense. Excl. agency. Reply to—Somsak Charoenlap, Mng. Dir., A.I.C.E. Enterprises (Thai) Co., Ltd., 35/9 Chalermlok Trade Center, Rajdamri Road, Bangkok 5. Cable AICE; tel. 2526096, 2517528.

Heating apparatus, plumbing fixtures

3433719—FRANCE—All types of parts & devices for industrial gas burners. Reply to—Philippe Balland, Societe Balland-Brugneaux 16, Blvd De La Republique, 71107 Chalon Sur Saone; Phone 481603; Telex 800547; Cable Balland Chaln.

Fabricated metal products

34940XX—NETHERLANDS — Advanced components for pipeline systems in process industries. Reply to—H. Jes, Mgr., Vedriex BV Technical Trading Co., Nieuwe S-Gravelandseweg 33, P.O. Box 178, Bussum. Telex 43782, Tel. 02159/16447.

General industrial machinery

3569126—UNITED KINGDOM—Agents & distr. for label presses, drying tunnels for printed webs, paper slitters, & ancillary equip. for label-making. Employs 15 incl. 2 salesmen. Interests are any type of label-making equip. Reply to—P. Botterman, Dir., Edale Investments Ltd., 3 Fletcher St., Ashton-Under-Lyne OL6 6BY. Tel: 061-330-4419.

Office, computing, accounting machines

3573261—SWEDEN—Line and dot printers for process control industries. Co. intends to buy about 50 printers/year. Share capital is Skr. 50,000. Employs 30. Head office located in Malmo with branch office in Vasteras. According to local credit sources, co. is well-estab. & has met business obligations satisfactorily. Reply to—Peter Brakl, Instrumentfirman Inor AB, Emilstorpsgatan 32, S-213 64 Malmo. Telex: 32452 Inorab S; tel: 040/222500.

Antique, secondhand stores

5931XXX—AUSTRALIA—Used V-8 engines, used automatic & 4-speed transmissions. Chevrolet & Ford products or equal. Annual sales potential $130,000. Co. is small partnership. Reply to—J. R. Tauschke, Partner, Super Plus, 55 Bennet St., Dandenong, Vic. 3175. Tel.: 03/791/7139.

Visiting Buyers & Officials

PAKISTAN—G. N. Siddiqui of Karachi is interested in hearing from U.S. manufacturers of **wall decorations and sanitary fittings.** He wants to become agent for such products. He may be contacted through Theresa E. Rettig, Foreign Buyer Program, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230; 202-377-3265.

JAPAN—Japanese owners and officials of K Mart chain stores will visit California in January to study **U.S. convenience store operations**, and to seek **household necessities of both food and non-food items**, salable in Japan. Buyers also seek **store fixtures.** They would like to visit urban and suburban convenience stores and combination stores, both franchise and non-franchise, with emphasis on non-franchise; talk with store owners or managers briefly to exchange views on merchandising; buy samples of American products salable in Japan; and invite lecturers to dinners or briefings scheduled in Los Angeles and San Francisco. Group has budget to pay fee to lecturers. K Mart was established in Japan in 1964 by Kittaka and Co. Ltd., as voluntary chain of grocery stores. Has over 500 non-franchise stores owned by individual companies, and sales exceed U.S. $200 million. American firms interested in contacting these Japanese buyers contact Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

SWEDEN—Erik Kjellner of Stockholm wants to find U.S. suppliers of **diluting agents, thickening agents, preservatives and other chemicals used for manufacture of latex.** He will be in the U.S. for 9 days beginning Dec. 2. He also plans to attend National Plastics Expo in Chicago. Theresa E. Rettig, 202-377-3265.

FRANCE—Robert Halgand and Jacques Masson are interested in becoming French distributors for **inexpensive consumer goods such as soft drinks, dietetic products such as sugar-free items and salt substitutes, wearing apparel such as jeans, t-shirts, sweatshirts and sportswear, and bourbon.** Theresa E. Rettig, 202-377-3265.

URUGUAY—Roberto Lannes, Montevideo, wants to hear from U.S. manufacturers of **machinery to make polyethelyne packing materials.** His primary interest is sheets of air-filled sacs of polyethelyne used to prevent crushing of various items. For further information contact Theresa E. Rettig, 202-377-3265.

TAIWAN—David W. Lee, Taipei, is interested in hearing from U.S. manufacturers of **bridge-building materials, epoxy for the paper industry, new-to-market products, and sharks fins.** Theresa E. Rettig, 202-377-3265.

NIGERIA—Olusola Olaniyan, a registered pharmacist, will be returning to Nigeria at the end of 1977 and is interested in becoming an **agent for U.S. pharmaceutical firms.** He may be contacted at 906 Gallatin St., NW., Apt. #203, Washington, D.C. 20011, phone 202-722-1929. Theresa E. Rettig, 202-377-3265.

TAIWAN—Hsi-Ching Chen of Taipei is interested in purchasing **machinery to manufacture polystyrene cups and blow-molding machinery to make narrow-neck bottles and paper for making milk containers.** Theresa E. Rettig, 202-377-3265.

Costa Rica Updates Register For Suppliers To Institute

The Costa Rican Social Security Institute, an autonomous agency of the government, is updating its register of firms from which the Institute makes direct purchases and purchases by private bids. Public bids are published in the Official Gazette, private bids are solicited directly from companies registered with the Institute. Among the items bought are laboratory chemicals, inorganic bulk compounded chemicals, hospital utensils including kitchen utensils, x-ray plates, photographic material and equipment, and medical, surgical, pharmaceutical and research instruments and apparatus. U.S. firms wishing to register should send their complete name, address, telephone number and product line to Juan Alfredo Gudino, Jefe, Departamento de Aprovisionamiento, Caja Costarricense De Social-CCSS, Aptdo. 10038, San Jose, Costa Rica. P-76886.

Joint Construction Ventures Can Ease Entry Into Nigeria

American firms face an uphill fight in participating in the Nigerian construction sector. Arriving on the scene after European firms are already solidly entrenched, they often discover that both Nigerian State and Federal officials prefer to deal with someone they know, understandably with companies which have proven themselves in Nigeria. A possible way to gain better entry might be through joint ventures with companies already in Nigeria which have foreign participation. These firms and the Americans could bring complementary advantages to a combined operation which would benefit all concerned. Firms interested in joint venturing with foreign constructors in Nigeria notify Janice Philbrick, Major Projects Div., Rm. 3056, U.S. Department of Commerce, Washington, D.C. 20230. Names will be forwarded to the U.S. Embassy in Lagos.

Future Construction Abroad

MEXICO—Consortium of Mexican entrepreneurs plans to construct **tourism complex** in Acapulco, consisting of horse-racing track, dog-racing track and cock-fighting theater. Project will cost an estimated U.S.$176 million and will be a large version of existing example this type installation in Aguascalientes, Mexico. Consortium will be able to construct, but needs assistance with technical aspects of construction and, thereafter, administrative skills and operating methods. Proposed relationship of U.S. firm would be equivalent of, e.g., Hilton Co. to foreign-owned hotels. Consortium requests specifically collaboration with prestigious company. U.S. firms acquire up to 49 percent equity if desired. Contact American Embassy, Cor. Danubio and Paseo de la Reforma, 305 Colonia Cuauhtemoc, Mexico D.F.

INDONESIA — International civil engineering contractors and subcontractors of prefabricated buildings are invited to submit prequalification material to aid on the construction of **Port of Tanjung Priok.** Information and documentary evidence of firm's organization, financial stability, completed projects of similar nature, machinery and equipment inventory, and curriculum vitae of key personnel to be assigned to project must reach Port of Tanjung Priok, Jalan Pelabuhan Raya 9, Tanjung Priok, Jakarta Utara, with copy to Port of Tanjung Priok, c/o Swan Wooster Engineering Co., Ltd., 1525 Robson St., Vancouver, B.C., V6G 1C5, Canada (telex no. 0451275) by Dec. 20. Partially financed by $32 million World Bank loan, the work includes general cargo facilities (demolition, new buildings, storage yards), regional harbor facilities (dredging, wharves, roads), pre-engineered steel transit sheds (approx. 34,000 square meters), and land side access (overpass, roads, related services). OPIC.

NIGERIA—Ibadan firm of Tropic Design Partnerships has been commissioned by Nigeria's new federal Capital Development Authority (CDA) to prepare concept design and cost estimate for **field camp** near Abuja, intended to house 7,000 within 6 years. Approximate value of project is $50 million. Initial terms of reference could be expanded to require substantial infrastructure facilities, including small airport. Construction firms interested in participating send qualifications and brochures to Olanrewaju Olateji, Tropic Design Partnerships, 11 Ilaro St., Bodija, P.O. Box 1864, Ibadan. To avoid delays and assure receipt, material may be sent directly to American Consul, Barclay's Bank Bldg., P.M.B. 5221, Ibadan, for transmittal to Olateji.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance on assets and bank guaranties to U.S. construction and service firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's contract insurance programs, write Construction Insurance Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-7825.

HONG KONG—Marine Department planning to invite tenders from consulates for detailed studies of Crown Colony's **harbor surveillance system.** Some combination of radar, day and night remote-controlled television and VHF radio location equipment will replace VHF radio system and visual contact currently used to monitor ship movements. With target date for completion of 1980, installation expected to begin in 1978. System is budgeted at approximately $4 million plus cost of feasibility study.

THAILAND—Fish Marketing Organization (FMO) and Cold Storage Organization (CSO), both state enterprises, have borrowed a total of $20 million from Asian Development Bank and approx. same amount from local banks. FMO, which will grant a total of almost $25 million in loans to poor fishermen to purchase **boats and equipment,** is collecting information from these fishermen as to what types of engines and other marine equipment they are interested in purchasing. When this information is tabulated, FMO will begin buying via international tenders on behalf of fishermen. CSO has been allocated approx. $16 million to purchase **five cold storage installations and 32 cold storage trucks.** ADB is expected to approve bidding specifications by end of this year and then CSO will issue international tenders for equipment. Further details may be obtained from Sant Bundhukul, Dir., Fish Marketing Organization, Yanawa, New Rd., Bangkok, or from Sanan Ruamluks, Dir., Government Cold Storage Organization, Yanawa, New Rd., Bangkok. OPIC.

TURKEY — Istanbul Urban Expansion Project, $2.3 million of which World Bank agreed in June 1972 to finance, is being implemented in two stages. First covered economic and social planning studies to determine development strategy for Istanbul through 1995 and is completed. Funds remaining (less than $1 million) will be spent for implementation of second stage, which involves **feasibility studies for infrastructure projects** in Mahmut Bey area in Westside Istanbul, which has been selected as pilot project area, representative of other areas needing immediate planning. After Bank approval of tender specifications prepared by Ministry of Reconstruction, international tenders will be called for feasibility studies. Foreign consulting companies will be required to form consortia with Turkish firms in order to bid. Further information may be obtained from Imar ve Iskan Bakanligi, Metropoliten Planlama ve Imar Genel Mudurlugu, Ankara, or from Istanbul Nazim Plan Burosu, Odakule, Beyoglu, Istanbul. OPIC.

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Los Angeles, 90049, Room 800, 11777 San Vicente Blvd. (213)824-7591

Memphis, 38103, Room 710, 147 Jefferson Ave. (901) 521-3213.

Miami, 33130, Rm. 821, City National Bank Bldg., 25 W. Flagler St. (305) 350-5267.

Milwaukee, 53202, 605 Federal Office Bldg., 517 E. Wisconsin Ave. (414) 224-3473.

Minneapolis, 55401, 218 Federal Bldg., 110 S. Fourth St. (612) 725-2133.

New Orleans, 70130, Room 432, International Trade Mart, 2 Canal St. (504) 589-6546.

New York, 10007, 37th Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

Newark, N.J., 07102, Gateway Bldg. (4th floor) Market St. & Penn Plaza (201) 645-6214.

Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

Philadelphia, 19106, 9448 Federal Bldg., 600 Arch St. (215) 597-2850.

Phoenix, Ariz., 85004, 508 Greater Arizona Savings Bldg., 112 N. Central Ave. (602) 261-3285.

Pittsburgh, 15222, 2002 Federal Bldg., 1000 Liberty Ave. (412) 644-2850.

Portland, Ore., 97204, Room 618, 1220 S.W. Third Ave. (503) 221-3001.

Reno, Nev., 89502, 2028 Federal Bldg. 300 Booth St. (702) 784-5203.

Richmond, Va., 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

St. Louis, 63105, 120 S. Central Ave. (314) 425-3302.

Salt Lake City, 84138, 1203 Federal Bldg., 125 S. State St. (801) 524-5116.

San Francisco, 94102, Federal Bldg., Box 36013, 450 Golden Gate Ave., (415) 556-5860.

San Juan, P.R., 00918, Room 659, Federal Bldg., Chardon Ave. (809) 763-6363, Ext. 555

Savannah, 31402, 235 U.S. Courthouse and Post Office Bldg., 125-29 Bull St. (912) 232-4321, Ext. 204.

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A new Global Market Survey—"Laboratory Instruments"—has just been published by the U.S. Department of Commerce as a part of a program designed to help this industry expand its export marketing efforts. The survey shows that laboratory instrument sales in 16 leading countries should exceed $1.8 billion by 1979. The predicted increases will follow on the heels of already vigorous growth experienced in recent years. These markets soared from over $650 million in 1972 to more than $1 billion recently.

Countries covered by the Survey include:

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- Czechoslovakia
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- Iran
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- United Kingdom
- Venezuela

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COMMERCE AMERICA

FORMERLY COMMERCE TODAY

U.S. Department of Commerce / December 6, 1976

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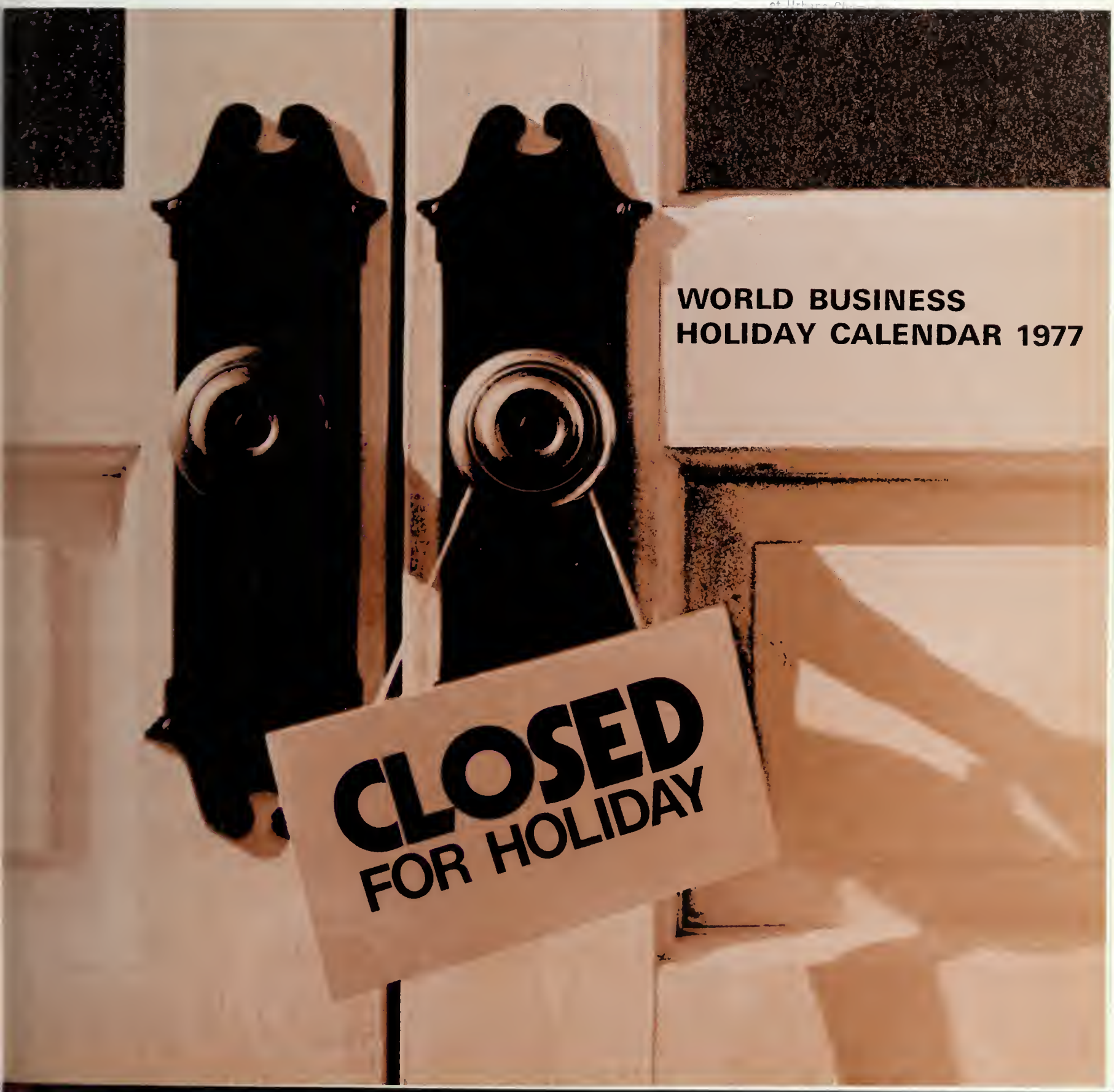

WORLD BUSINESS HOLIDAY CALENDAR 1977

Newsmemo

"If the jobs aren't here, many of our talented graduates will be forced to look elsewhere." So said Oliver Perry, President of the Minnesota Association of Commerce and Industry, in sounding the call for a unique Minnesota Economic Summit Conference held this month in St. Paul with a theme of "Perspective Nineteen Ninety." Perry and his colleagues in labor, education, agriculture and state government circles believe that Minnesota will have to produce 285,000 new jobs by 1990 to keep pace with population prospects and economic indicators. "We have to plan for these new jobs. They won't emerge by accident. We have to capitalize on our assets," was Perry's challenge to Minnesotans, in seeking statewide help.

The Washington Rep is ready to travel again. His column in the late, lamented bimonthly trade publication "Worldwide Projects & Installation"—it cast an unearthly glow on the international engineering and construction business—is being revived. Editor Dick Lurie is giving the Rep a new exposure in the successor publication, "Worldwide Projects," due to make its bow in April. Executives of enterprises in the consulting engineering, design/construction, contracting, architectural and governmental fields may apply for complimentary subscriptions at 15 Franklin St., P.O. Box 5026, Westport, Conn. 06880.

Give the U.S. aerospace industry top marks for export aggressiveness. Seven months prior to next June's Paris Air Show, U.S. producers of aerospace equipment and supplies booked all available space in the U.S. Pavilion sponsored by Commerce Department's Bureau of International Commerce. Airframes, engines, communications and navigation equipment, instrumentation, air traffic control items, metals and materials, and aerospace services will be displayed by 83 U.S. participants. While export sales are uppermost at the biennial exhibition, the U.S. will be celebrating the 50th anniversary of Lindbergh's landing at Le Bourget, where the show is held.

Enthusiasm over sales opportunities in Venezuela has led to the opening of a "pre-registration" queue for trade shows there. Commerce is scheduling six shows beginning next April at a new exhibition facility in Caracas. Pre-registrants get guaranteed space, and later applicants are placed on a waiting list pending space availability. About six months before each event the pre-registrants are asked to exercise their option to participate. Commerce District Offices have the details on these shows, which cover process control instruments, metalworking machinery, telecommunications, energy systems, graphics equipment and plastics production.

Forget that once-ingrained notion that U.S. consumer goods are too expensive to sell worldwide. In this decade the dollar value of such exports has increased 30 percent per year. Household textiles are the sales leader, followed by optical goods, furniture and home furnishings, and household appliances. The whole story, with details on Commerce promotions of consumer goods abroad and a 15-country sampling of stores and mail-order houses actively selling U.S. merchandise, is in the recently-published "Report on International Markets for U.S. Consumer Goods." For a copy write Office of Int'l Marketing, Special Activities Division, Room 6051, U.S. Dept. of Commerce, Washington, D.C. 20230.

A code of disclosure is a powerful business regulator. So believes BankAmerica Corp. which has adopted such a code. It opens up 70 categories of information about bank and corporate activities—bad news and good news alike—to public view. President A. W. Clausen, convinced that the marketplace can be a more effective governor of banking affairs than governmental constraints, notes, however, that "the marketplace can fulfill this role only when its participants have access to the timely information essential to any well-reasoned decision."

Metric terminology, now seeded on the data level among U.S. farmers, will begin to sprout soon in practical usages. And the U.S. Dept. of Agriculture, observing that the data conversion has been "relatively easy," foresees some difficulties "when the farmer, who has concepts of bushels or bales per acre, must think in terms of quintals and kilograms per hectare." But the Department expects good progress toward metric on the farm as the nation proceeds through its 10-year voluntary conversion period, and comments: "The next generation will probably find it hard to understand why Americans put up with the present awkward system as long as they did."

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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CLOSED FOR HOLIDAY

COVER: In traveling throughout the world, business executives need to know the special days set aside by various nations as holidays when business is closed. For that reason, this magazine annually publishes the special holidays for approximately 100 countries. The 1977 listing begins on page 26.

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ECONOMIC HIGHLIGHTS

Labor Force Growth Alters Outlook For Next Decade

This column was prepared by John W. Kendrick, Commerce Chief Economist, in collaboration with staff economist Leslie W. Small.

John W. Kendrick

An upward revision in the projection of growth in the labor force in the late 1970s and early 1980s increases the potential Gross National Product that our economy can provide. On the other hand, the greater number of workers will require the creation of a larger number of jobs to reduce unemployment.

The latest in a series of labor force projections was announced in August by the Bureau of Labor Statistics. The forecast figures have been increased with each revision since 1970, principally because an increasing proportion of women is entering the labor force. The latest projection indicates that by 1980 about 2.5 million more women will be in the labor force than had been estimated in 1973. The latest forecast for 1985 raised the estimated number of women by more than four million compared to the 1973 projections. (See Table 1.)

The projections indicate an annual rate of growth of 1.8 percent in the labor force until 1980 and a rate of growth of 1.3 percent from 1980 to 1985. In order to reduce unemployment, the economy will have to provide jobs for a substantial number of new entrants into the labor force as well as jobs for some of those currently unemployed. If unemployment can be reduced to, say, 4.7 percent in 1980, about 97 million people will be working. In 1976, employment has averaged about 87.7 million. Thus, about 9.3 million workers will have to be employed by 1980 to meet the interim 4.7 percent rate of unemployment.

The slower growth of the labor force after 1980 and the reduced number of unemployed, lower the number of persons that must find work in the first half of the 1980s. Some economists accepted 4 percent unemployment as a reasonable rate for "full employment" in the 1960s, although the comparable rate probably would be higher in 1985 due to demographic and institutional changes. There is an inverse relationship between the rate of unemployment and the number of unemployed who voluntarily left their last job. When employment is readily available people quit jobs to look for more attractive alternatives. That percentage of joblessness also includes the hard-core unemployed who cannot find employment because of physical infirmities or inappropriate skills, and who must be aided by programs directed at overcoming specific handicaps. The ranks of the unemployed would have to be reduced an additional 400,000 in order to attain a 4 percent rate by 1985, and more than 104 million would be employed.

In sum, about 9.3 million additional people would have to be employed in order to attain a 4.7 percent rate of unemployment by 1980, and, if the 4 percent rate then seems appropriate, an additional 7.3 million would have to find employment by 1985.

In rough terms, "Okun's law" can be applied to estimate the growth of Gross National Product needed to provide the additional employment. The research by Arthur Okun showed that approximately 4 percent annual growth of GNP (excluding inflation) was necessary in the 1950s to absorb labor force growth and that an additional growth of 3 percent per year would reduce the unemployment rate by 1 percent. Applying this principle, if the rate of unemployment is to be reduced from the 7.7 percent average of 1976 to 4.7 by 1980, a decrease of 0.75 point per year would be required. Thus, "Okun's law" indicates that annual growth of 6.25 percent is necessary to reduce the rate of unemployment to 4.7 percent and absorb the projected growth of the labor force between now and 1980. After 1980, the rate of GNP growth required to attain full employment by 1985 falls to about 4.4 percent.

These required rates of growth in GNP may be on the high side because productivity has slowed over the past decade. The amount of GNP produced at full employment, or potential GNP, can be estimated by a method developed by the Bureau of Labor Statistics. (This estimation process is described in a 1975 BLS bulletin, No. 1831, *The Structure of the U.S. Economy in 1980 and 1985.*) In the projections shown in Table 2, it is assumed that productivity of workers in the private, nonfarm economy will increase 2.2 percent annually between 1972 and 1980 and 2.6 percent between 1980 and 1985. Average annual hours worked are expected to decline 0.25 percent per year. A third basic assumption is that Federal Government employment will remain stable and that state and local government employment will increase 3 percent annually.

Real GNP will total about $1,265 billion for 1976. Under the basic assumptions given above, real GNP in 1980 could be about $1,590 billion, which represents an annual rate of growth of 5.9 percent. The results of the approaches of both Okun and BLS indicate that the economy must grow at a rate of 5.9 to 6.3 percent in each of the next several years to reduce unemployment to 4.7 percent by 1980.

In constant-dollar prices, GNP could be expected to grow to $1,900 billion by 1985 under the BLS method of projection. Growth of 3.6 percent annually after 1980 would attain full employment by 1985. The difference in the growth rate indicated by the BLS approach (3.6 percent) and that suggested by Okun's approach (4.4 percent) is attributable to the slower growth of the labor force after 1980, as well as slower productivity growth projected by BLS.

The chart compares the number employed to GNP, in terms of 1972 prices, since 1950. The projected employment and real GNP for 1980 and 1985 are also included. It is apparent from the chart that real GNP grows at a faster rate than the number employed. This difference is accounted for by the rate of increase in productivity.

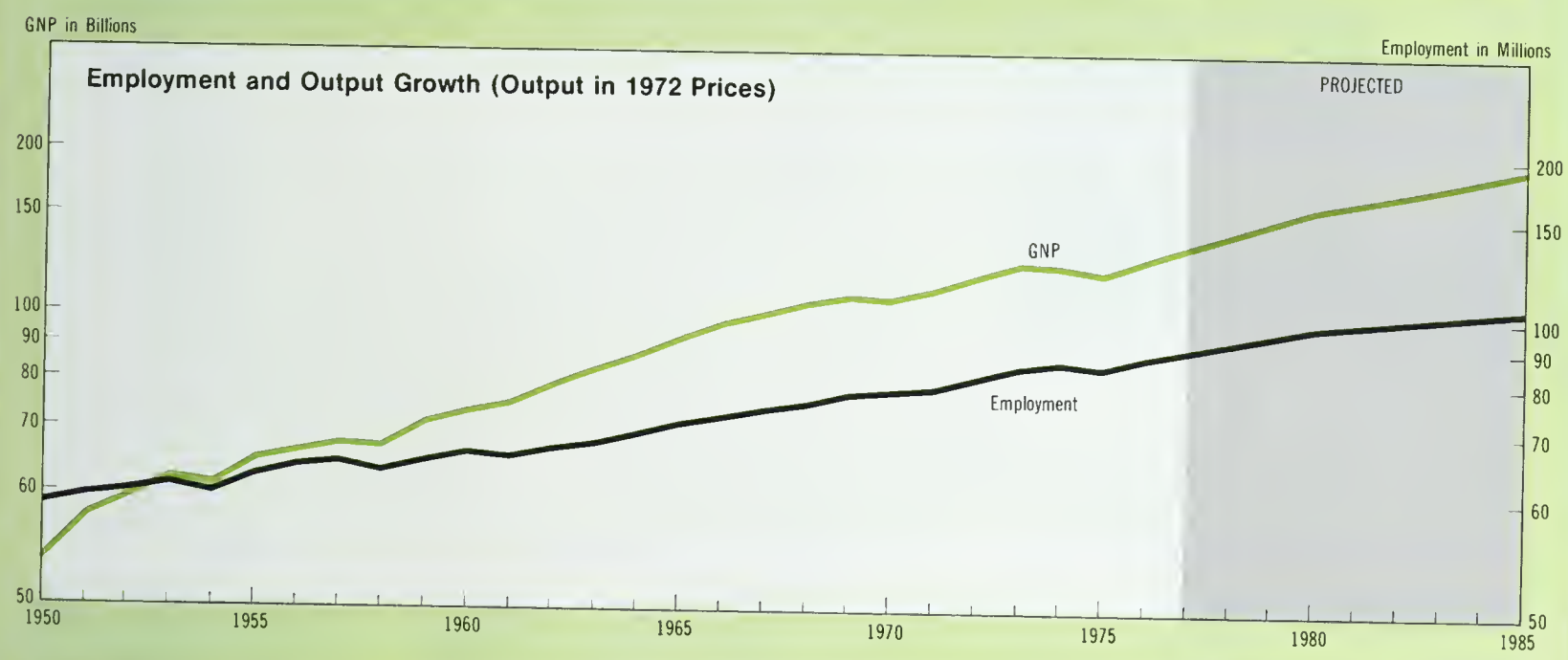
The projected slowing in the growth of the labor force after 1980 is predicated on the decline in the rate of births per thousand individuals in the United States after 1957. The trend in births has another important implication that is relevant to this analysis: the relative aging of the labor force. Table 1 shows the decrease in the proportion of the civilian labor force composed of teenagers. The maturation of the labor force suggests that productivity growth could rise from the 2.2 and 2.6 percent annually assumed by the BLS projections. Greater productivity in the private economy would increase the amount of real GNP produced by the labor force and would allow a greater increase in material living standards for U.S. citizens.

Labor Force Statistics

In thousands	Actual 1960	1965	1970	1975	Projected 1980	1985
Civilian labor force	69,628	74,455	82,715	92,613	101,673	108,602
Employed	65,778	71,088	78,627	84,783	96,895	104,258
Unemployed	3,850	3,366	4,088	7,830	4,778	4,344
Unemployment Rate (percent)	5.5	4.5	4.9	8.5	4.7	4.0

Composition of the Labor Force (in percent)

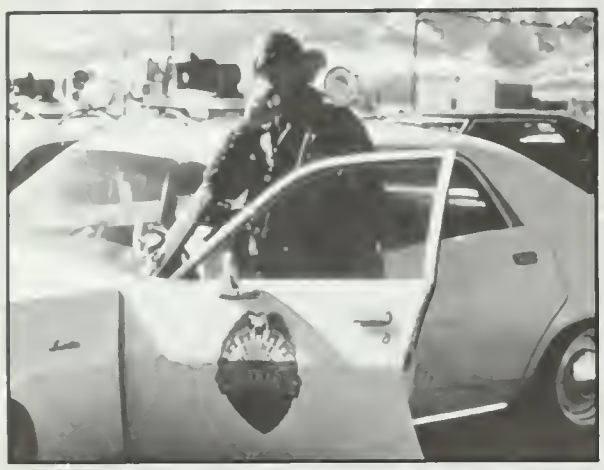
Teenagers, 16-19 years	7.0	7.9	8.8	9.5	9.0	7.3
Males, 20-54 years	50.0	48.3	45.8	45.3	45.1	45.8
Females, 20-54 years	24.9	25.7	27.9	29.9	31.2	33.2
Both sexes, 55 and over	18.1	18.1	17.5	15.3	14.7	13.7



Gross National Product Based on Labor Force Projections (1972 prices)

			Actual 1972	Projected 1980	1985
1	Total Employment (jobs count, thous.)		89,251	104,897	113,056
2	Government		14,608	17,685	20,087
3	Private, agricultural		3,450	2,750	2,300
4	Private, nonfarm		71,193	84,462	90,669
5	Average Annual Hours per Worker	Agricultural	2,267	2,179	2,125
6		Nonfarm	1,950	1,911	1,889
7	Private Hourly Output per Worker	Agricultural	$ 3.71	5.96	7.87
8		Nonfarm	7.237	8.61	9.79
9	GNP Estimates (billions of 1972$)	Government (actual wage costs)	$ 137.4	$ 167.5	$ 189.2
10		Private Agricultural (row 3x5x7)	29.0	35.7	38.5
11		Private Nonfarm (row 4x6x8)	1,004.7	1,389.7	1,676.8
12	Total GNP (row 9+10+11)		$1,171.1	1,592.9	1,904.5

Miniaturization



Remote units

Telecommunications: A Pervasive Industry

Just how massive is telecommunications? Only a few weeks ago the American Telephone and Telegraph Company announced the all-time record for quarterly profits with a mark of $1.01 billion. That is just one measure of the industry's dimensions, John M. Richardson, Director of Commerce's Office of Telecommunications recently told the Harvard Club of Washington.

There are innumerable others. The Department of Commerce estimates that in 1975, the telecommunication common carriers alone which include the telegraph and telephone industries—took in $36.5 billion in revenue, boasted a gross cumulative plant investment of $123 billion, and employed close to a million workers.

By way of comparison, the automotive industry—the nation's largest manufacturing industry—in the same year claimed an overall value of shipments of $38 billion and employed 380,000 workers.

So, when telecommunications is compared even to the giants of the manufacturing sector, it more than holds its own.

But telecommunications is more than just big; it is also dynamic, so much so that countervailing interests are continually struggling for advantage. By its technological advances and business oppor-

The way it was

tunities, it keeps dictating changes in national policy, regulatory decisions, and legislation, Richardson pointed out.

A Commerce economist recently completed what is believed to be the first systematic analysis of the nature and the extent of the information sector in the U.S. economy. His research indicates that we are now truly an "information society." In 1967, the latest year for which there is a detailed picture of the economy, 46 percent of Gross National Product resulted from goods and services carefully defined as central to the production, the processing, and the exchange of information. Since 1967, that percentage has grown, Richardson says.

This 46 percent reflects more than work associated with obvious information products, such as school books or television commercials. It also embraces those informational activities that contribute to noninformation goods and services. An automobile is hardly an information product. But the research and the cost accounting that went into its design and production surely were.

Furthermore, more than 40 percent of American workers take part in informational activity. And they account for more than half of the national wage bill.

Now, telecommunication technology is central to the flow of information. Without it, after all, such applications as electronic mail, point-of-sale transactions, and telemedicine would quite simply be impossible. Therefore, as the information sector enlarges and becomes even more sophisticated, so will telecommunications.

Richardson gave three examples of the growing sophistication of telecommunication technology: the satellite, fiber optics, and the large-scale integration of electronic circuits. "Make no mistake about it. These three are going to touch everyone's lives, first merely as news items, later as commonplace technologies.

With respect to the communication satellite, up until early 1974, there was an international system—the INTELSAT series—and that was it. There was no domestic communication satellite system at all. Now there are three.

Satellite progress is measurable not only in terms of the number of "birds" orbiting up there, but also in terms of the number of available circuits per satellite and the reduction in the price of a circuit per year. In 1965, the Early Bird satellite provided 240 circuits; the yearly price of one of them was $32,500. Today, an INTELSAT IV-A series satellite carries 6,000 circuits, each priced at only $1,100 per year.

And what's more, Richardson said, it may not be long before it is commonplace to transmit signals direct from satellites to small antennas at office buildings or even at individual homes.

Fiber optics is a revolutionary communication technology. In a nutshell, fiber optic communications consist of signals transmitted on lightwaves through hair-thin glass fibers. These lightwaves—generated either by a laser or a light-emitting diode—can carry vastly more signal than can ordinary telephone wires or coaxial cables. And they do this with fewer repeaters and with much less size, weight, and material cost. With these advantages, fiber optics could greatly lower system costs per circuit-mile.

By and large, the technology of fiber optics is here. Only marketplace barriers inhibit its widespread use. These are the same barriers that seem to arise to block the way of any new technology.

Large-scale integration of electronic circuits is another way of describing the recent shrinkage in size of computer components. We have reached the point where an entire computer can fit into the palm of a hand. This means that local computer terminals can do most of their own calculations and be less dependent on large, central computers. This in turn opens the way to network information services composed of terminals in offices—and, later, in homes. Richardson expects these services to assume a good deal of the information collecting, processing, and storing now done by human labor.

When telecommunications joins hands with computer technology, it is called teleprocessing. It is a service worth becoming familiar with. For within the next decade or so, everyone will become teleprocessing users, at least to a limited extent. The game will no longer be called EDP, for electronic data processing, but EDC, for electronic data communicating.

It is this sort of technological advance that is forcing Americans to question their assumptions about the structure and the regulation of the telecommunication industry. The overriding issue is how to lower the economic, regulatory, policy, and technical barriers that now inhibit the telecommunication growth that the nation needs so much.

The most immediate object of national policy attention is the Consumer Communication Reform bill, introduced in both houses of Congress last session. The subsequent committee hearings were marked by fervent proclamations by both sides that their point of view was the high road to telecommunication growth.

Stated simply, the bill addresses the issue of monopoly vs. competition. Should telecommunications be regulated as a "natural monopoly"—which is to say, should it be placed wholly within the purview of the common carriers as public utilities? Or should some degree of competition be allowed? If this last is to be the case, how much competition would be desirable?

For years there was no such issue. Telecommunications was strictly a regulated monopoly. Then, in 1959, the Federal Communications Commission decided to open up certain microwave channels to competition.

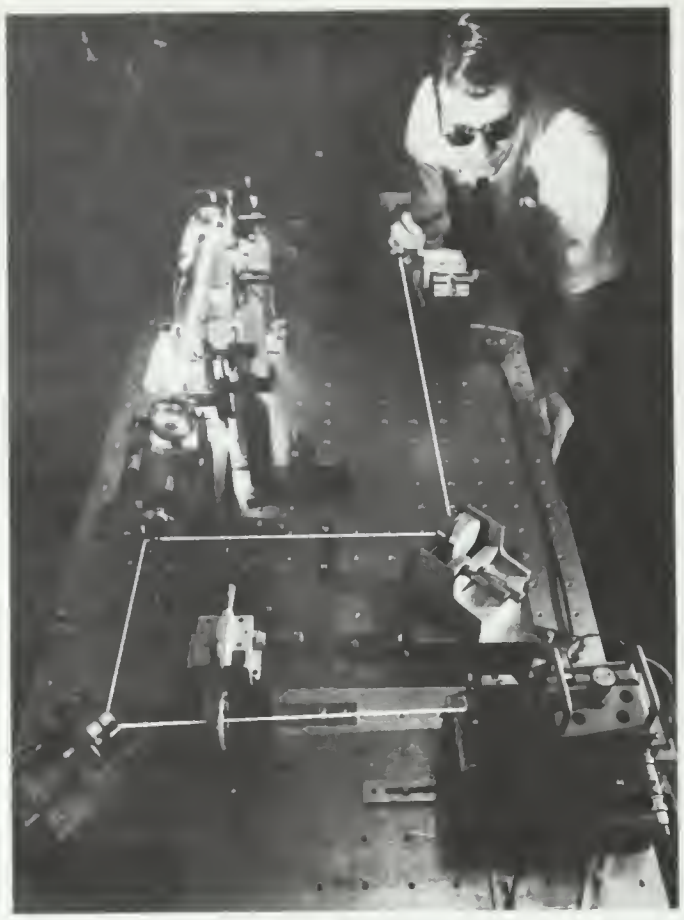
The next breakthrough for competition came in 1968, when the FCC ruled that telephone users could acquire terminal equipment from other than the telephone company. If the equipment met certain engineering standards, the public telephone network had to allow it to be interconnected.

The debate over these decisions has accelerated over the years. Then, last spring, with the emergence of the Consumer Communications Reform bill, the battle was truly joined.

What would this bill do? Well, among other things, it would ban "wasteful or unnecessary duplication of communications lines." Also, it would allow the individual states to judge the permissibility of equipment to be interconnected.

The authors of the bill thus seek the economies of scale that derive from a regulated monopoly. Its opponents, on the other hand, contend with equal ardor that competition will bring with it a

. . . we are now truly an "information society."



Seeking tomorrow's breakthroughs

Lasers: the key to fiber optics

The game will no longer be called EDP . . . but EDC, for electronic data communicating.

greater diversity of services, a higher degree of innovation, and lower prices for the consumer.

Stated in a nutshell, Richardson says, the nation's legislators will have to decide which position represents the more direct path to improved communication growth.

To date, the debate has served to point up some of the soft spots that exist in the practice of contemporary economics. The discussion has to a large extent revolved around the costs and prices of various kinds of telephone services, and the economists on both sides—presumably using much the same data—have come up with conclusions that are diametrically opposed!

Thinking in more fundamental legislative terms, Richardson feels there is good reason to believe that we will shortly see a top-to-bottom reevaluation of the cornerstone of U.S. telecommunications—the Communications Act of 1934. Both the chairman and the ranking minority member of the House Subcommittee on Communications have stated that they favor such a reassessment.

Why undertake such an extensive legislative effort? Well, since the Communications Act was passed there has been what amounts to an explosion of telecommunication technology and a proliferation of applications for these new technologies. This burst of technological growth has severely challenged the structure and the reasoning of the Act of 1934. A new Communications Act, then, would abandon the problem-by-problem "band-aid" approach in favor of a fresh start geared to what we know 42 years later.

Quite apart from legislation, the growth in telecommunication technology has created another issue that is going to be sure headline material for some time to come: the preservation of privacy.

Privacy has been a major national concern ever since the potential of the computer and of teleprocessing became evident. There is no mystery why: it is chilling to ponder all that personal information stored in all those computers to which there is such apparent easy access. What could happen if this mine of personal information were to fall into the hands of an individual bent on fraud or an authority bent on abuse of power?

Concern about privacy has lately taken on a sharper focus thanks to the emergence of electronic funds transfer systems. People are expressing some hesitation about this electronic way of paying bills via banking terminals at the store, with special cards lifting money out of the customer's account and dropping it into the store's. What about stopping payment on a check? Forget it—the transaction is completed instantaneously, with no time for second thoughts. And suppose the computer gets a person's monthly balance wrong. Without cancelled checks, it might take an Act of Congress to sort everything out.

But great risks will call forth equally great safeguards, Richardson points out. Just last year the Privacy Act of 1974 went into effect. It pertains to all federal agencies and federal contractors that keep files containing personal data. It requires that the greater part of these files be made accessible to the people mentioned in them. Another encouraging event along these lines was the Congressional establishment of an independent Privacy Commission. The Privacy Act and the Commission's activities should serve to strengthen public confidence in the integrity of these sensitive communications innovations.

Richardson pointed to other areas of concern which have been created in the wake of the na-

Satellite-tracking

alking to the computer

tion's rapid advances in telecommunication technology.

First are some of the implications of the "information revolution."

The word "information" generally has had a positive ring to it, being thought in terms of the enhancement of knowledge—or ability. However, the expansion of "information" in our lives can be interpreted—at least partially—as a kind of bureaucratic surcharge placed upon the manufacturing and commercial sectors. The comprehensive study of the information sector mentioned above revealed some interesting things about how those information activities that are part of the production of noninformational goods and services impose themselves upon that production. Thinking in terms of the big economic picture, this so-called secondary information represented in 1974 about a quarter of total national income. This is in sharp contrast to, say, the period just prior to the Second World War. Then, its share of national income hovered around 12 percent.

There is another way to measure this secondary information factor. In the late 1920s, the U.S. economy received about $6.50 worth of goods and services for each dollar spent on information activities. By 1974, it was down to only about $2.78 worth for each information dollar.

These long-range trends reveal a veritable onslaught of bureaucracy. The recognition that this is the case might temper the enthusiasm for the "knowledge explosion" somewhat. Or at least it should make clear the price the country is paying for the benefits of an enlarged information sector, Richardson said.

Another point: as time goes on, the reliance on computers will grow. More and more, they will house the information which is essential to the functioning of the economy. This raises a disturbing question about the level of national "computer literacy." Before long, the nation may find that it has yielded all direct contact with this computer-stored information to an elite group, the caste of highly-trained specialists who know computer language.

How paradoxical it would be if we were to allow such a turn of events, after courting technology so as to exert greater control over both our natural and administrative environments. Now the common person, who may well be illiterate as regards computer talk, may see his or her control over this computerized data badly diminished.

Is there a solution? Possibly, in Richardson's view. The country might, at great cost, achieve computer literacy through universal education, much as it achieved print literacy. Or, it could mandate that, upon demand, any computerized data must be translated into easily readable form.

As a matter of immediate priority, the United States needs an agenda of telecommunication issues to refer to as the various discussions unfold.

The formulation of such an agenda has, in fact, already begun. But at the moment it is being put together in bits and pieces—in the Congress, in the regulatory agencies, in the Executive Branch's policymaking sphere, and in the nation's laboratories. Before long a better-organized, more formal approach may seem wiser.

At any rate, Richardson is certain that telecommunications will continue to play an ever-increasing role in our lives. "It would be wise to apply ourselves to the big task of lowering the obstacles that now impede its growth." ⁂

Concern about privacy has lately taken on a sharper focus thanks to the emergence of electronic funds transfer systems.

A VIEW OF

GOVERNMENT'S ROLE IN FINANCING ENERGY INVESTMENT

What is the appropriate role of the Federal Government with respect to financing investments in the energy sector?

John M. Niehuss, Deputy Asst. Secretary of the Treasury for Investment and Energy Policy, outlined his view of the matter at the recent Conference on Financing World Energy Requirements in Tulsa.

"Perhaps we should begin with a very basic question—why should the U.S. Government even consider developing a policy with respect to financing energy sector investments? Why not continue, as in the past, to let the decisions of private parties completely determine the course of energy investments rather than have the Federal Government become involved in any way?"

In Niehuss' view, there are sound economic reasons for such a private market policy:

- The superior ability of the private market to efficiently allocate capital among competing users;
- The danger that the prospect of receiving federal financial assistance would reduce the willingness of private parties to undertake major projects without government support;
- The equity considerations involved in transferring the financial risks of private projects to the general taxpayer;
- The desire to minimize the degree of government involvement in, and control over, the energy industry; and
- The impact that federal financial assistance has on capital markets and debt management policy.

These considerations are the basic reasons why government policymakers to date have resisted extensive government financial assistance for energy development.

However, there are two important factors which Niehuss says have made the government's role in financing energy investments a legitimate public policy issue today.

The first is the goal of reducing the nation's vulnerability to interruption of foreign sources of energy. Specifically, the President has set a mid-term goal of achieving invulnerability to oil import disruption by 1985. This means a 1985 import range of 3-5 million barrels per day, replaceable by stored supply and emergency measures. If the United States is to achieve this important goal, it may have to develop both domestic conventional and nonconventional sources of energy at a more rapid rate than if it relied solely on market forces.

The second important factor which makes government policy toward energy finance an issue is that government is already heavily involved in the energy sector in a way which constrains the ability of the private market to undertake the needed level of investment. For example, the government continues to regulate the prices of natural gas and crude oil; it delays needed rate increases for public utilities; and its environmental policies often hinder the implementation of energy projects. Thus, the present situation is not one in which private market forces are the sole determinant of energy investments.

Rather, the country faces a difficult dilemma. On the one hand, government has sometimes seriously inhibited the ability of private market forces to allocate capital to the energy sector. On the other, there is a national need to accelerate the pace of domestic energy investment. Policy makers have to try to reach an acceptable solution to this dilemma which ensures that there is adequate finance available for needed energy projects.

A number of studies have been made concerning the required level of energy sector capital. In most cases these studies have analyzed the requirements based on several assumed scenarios, and the resulting estimates of the overall levels of capital requirements for the energy sector for the 1975-85 decade range from about $480 billion to about $680 billion in 1975 dollars. The U.S. Federal Energy Administration's estimate of $580 billion splits the difference.

In order to assess the relative size of this figure, Niehuss says it should be compared with estimated business spending on new plant and equipment of roughly $2 trillion in 1975 dollars over the same period. When viewed in this light, the $580 billion energy investment figure would constitute roughly 30 percent of estimated business fixed investment over the period, which would be well within the range of historical experience. Over the 1965-74 period, for example, energy investments as a percentage of total business fixed investment averaged 29 percent.

Despite the fact that the projected capital needs for energy are not out of proportion to historical trends, the extent to which the capital markets will be willing to continue to finance the necessary investment in energy is a matter of considerable concern. Historically, the energy sector financed a relatively small percentage of its investment from funds raised externally. For example, it is estimated that during the early 1960s about 25 percent of fossil fuel investment was financed externally, while the investor-owned electric utilities financed about 35 percent of their capital needs this way.

However, over the past decade the energy sector and business in general has tended to rely more and more on external financing, especially debt. During the late 60s and early 70s the fossil fuel industry financed roughly 30-40 percent of its requirements externally; and the level of external financing for investor-owned utilities ranged from 50-70 percent, Niehuss reports.

This increased reliance on external financing meant that the energy sector has taken an increasing share of the total funds supplied by the private capital market. Between 1961-65 the energy industry's share of the total amount of funds raised by business in U.S. capital markets averaged 18 percent. The energy sector's share rose to 21 percent for the 1967-70 period and then to 28 percent in 1975. Estimates for the 1975-85 period suggest

. . . the government is already heavily involved in the energy sector in a way which constrains the ability of the private market to undertake the needed level of investment.

Energy projects will have to compete with those from other sectors . . .

the U.S. capital market will provide some $1.1 trillion (in 1975 dollars) to the business sector and that the energy industry will require about 25 percent of these funds.

The capital markets probably will have the capacity to provide this level of funding, Niehuss believes. Thus, the concern is not about an overall shortage of capital, *per se*. However, given the current uncertainties (e.g. duration of oil and gas price controls) and regulatory climate it is doubtful that all of the needed funds will actually flow to the energy sector in the needed amounts. Energy projects will have to compete with those from other sectors, and the capital will normally flow to the most economic projects where it can be most profitably employed. These investment decisions will not only be determined by the expected rate of return on competing projects, but will also be strongly affected by the nature of the risks associated with the investment.

In spite of these risks, most of the needed conventional energy investments probably will be able to attract the necessary financing from private sources without federal financial assistance. There are, however, some types of energy projects which will be needed during the next ten years, but which, for various reasons, will be less able to attract funds from the private markets without some form of government assistance or some major changes in the government's regulation and control of the industry.

There is no single all-pervasive reason why certain energy development projects are not being financed in the private markets. In most cases there is a combination of factors which creates uncertainty in the minds of potential investors and prevents them from committing funds. Niehuss feels the most important of these are:

(1) *Some nonconventional energy projects included in the national energy program are marginally economic or, in some cases, not economic at current prices with the current state of technological development.* For example, synthetic fuel plants are at best only marginally economic at current prices. Because of uncertainty over future world oil prices and government regulatory policy, most synthetic fuel projects today are not attractive to private investors.

(2) *Past failure to take the needed regulatory action to improve the financial viability of certain segments of the energy industry and to provide requisite assurances to potential investors.* A prime example of this regulatory neglect would be the inadequate rate increases granted to electric utilities by state commissions, which have resulted in straining the financial condition of these utilities and in the deferral or cancellation of large amounts of new generating capacity. Almost half of the energy sector's projected capital requirements in the 1975-85 period are in the electric utility sector. Thus, electric utilities must raise more capital than the oil companies over this period, but will have less than half of their revenue base. While recent regulatory actions have resulted in some improvement in the financial situation of electric utilities, they can be expected to face financial difficulties unless additional actions provide for adequate rates and a stronger cash flow. Without more timely rate adjustment, and innovative regulatory actions such as including construction work-in-progress in the rate base, there may continue to be periods when the financial condition of the electric utilities retards the undertaking of needed investment.

The natural gas industry also needs substantial regulatory reform. The historic thrust of regulation in this industry seems to have been narrowly directed toward holding down the market cost of natural gas to consumers, and the cumulative adverse results of this policy are now painfully evident. Until recently the ceiling price of domestic gas at the wellhead was equivalent to pricing oil at less than $3.50 per barrel. With the cost of imported oil at nearly $12 per barrel, this artificial ceiling on the price of gas has caused major economic distortions and created a very large shortage of natural gas which has serious implications for the general economy. While the Federal Power Commission's regulated ceiling price on new gas was recently increased, it remains significantly below both the price of imported oil in terms of its energy equivalency and the price of gas sold in unregulated intrastate markets. This seriously distorts investment decisions and creates uncertainty with respect to financing natural gas projects.

If private financing is to be arranged for certain needed major natural gas projects, Niehuss says that deregulation of new gas prices and still other types of innovative regulatory actions may be needed. For example, the FPC and the relevant state regulatory agencies should examine the effects of their current regulatory practices on the continued ability of the natural gas industry to finance needed projects. In doing so, they should consider usage of (a) "all events full cost of service" tariffs, which pass some of a project's risk to gas consumers, (b) consumer surcharges which could be used to help finance exploration and development of new gas supplies, and (c) devices like inclusion of construction work in progress in the rate base which enable consumers to contribute to cash flow during construction.

In this regard, the Treasury Department has urged the FPC to consider these innovative regulatory devices as measures to help ensure that the roughly $10-$12 billion Alaskan gas transportation system will be financed in the private sector without the need for government backstopping.

(3) *Some energy projects have special risks which the private market may not be willing to bear.* Examples include projects involving the commercialization of technologies untested in the private market such as uranium enrichment facilities and synthetic fuel projects. The technological risk is often compounded by regulatory uncertainty and long construction lead times, and private investors simply may not be willing to bear the risks and commit funds to the projects. In such special situations, innovative regulatory measures or federal financial assistance may be needed if the nation is to develop needed energy technologies.

Given the very sizable capital requirements of the energy sector over the next ten years and the problems in securing private financing, what is the appropriate policy for the Federal Government?

Niehuss' answer to this question begins with a recognition of the fact that a solution which maximizes the role of the private sector will assure the most efficient allocation of resources and, hence, will ultimately cost the American people

the least. Thus, a central element of current policy is that the nation should place maximum reliance on private financing of energy projects.

Next, we must recognize that many of the barriers to achieving private financing of needed energy projects are a result of government regulation and control of the energy industry. Most of these difficulties could be overcome by timely and innovative regulatory action and through removal of other government impediments to the development of energy resources. In this regard, the vital role of independent state and federal regulatory agencies will be crucial in determining whether the private sector will be able to finance the needed level of energy investment over the next decade. They must be encouraged to adopt innovative procedures which will facilitate private financing. In short, Niehuss believes the basic long-run solution is to move forward as rapidly as possible with policy changes and regulatory reforms which will strengthen the ability of private firms to attract needed capital.

The problem, however, is that, considering the accelerated capital requirements needed to achieve energy independence, the necessary regulatory actions and congressional actions may be too slow in evolving. Many responsible bodies have shown a marked reluctance to take the difficult but necessary actions in this area. Thus, Treasury has reluctantly concluded that some forms of federal financial assistance may be needed for projects which will contribute significantly to energy independence, but would not otherwise be undertaken soon enough without government assistance.

The proposed program to accelerate the development of a commercial synthetic fuels industry is another example of a situation where federal financial assistance was contemplated. It was determined that an important element of the overall U.S. program to reduce energy vulnerability should be the rapid development, demonstration and commercial production of emerging synthetic fuels technologies. An Interagency Task Force, after a comprehensive study of how best to attain this objective, concluded that:

"In the absence of federally provided economic incentives or other policies creating a stable and favorable investment environment, significant amounts of synthetic fuels are not likely to be produced by 1985."

In this case the Treasury Department concurred that incentives were needed to insure that an adequate amount of private capital would be made available to get the synthetic fuels commercial demonstration program off the ground.

However, there are very real costs to the economy and the nation's capital markets resulting from federal assistance. For example, any type of federal financial assistance for energy projects which would not otherwise have been undertaken will lead to some redirection of capital resources. Such incentives increase the demand for capital, while having little or no effect on the overall supply of capital. They tend to cause interest rates to rise and channel capital away from more economic to less economic uses, Niehuss points out.

In short, any proposed program of federal incentives for energy products will redirect capital from other areas of the economy where it might be used more productively.

In addition, federal loan and price guarantees will result in new issues of bonds, notes or other government-backed obligations in the capital markets which impinge upon other federal agency financing and can have a significant market impact.

To minimize these potential adverse effects, the Treasury has emphasized that, in carrying out any incentives program, special care should be taken to keep the use of federal assistance to an absolute minimum, to reduce its capital market impact by giving the Secretary of the Treasury the authority to approve the timing and substantial terms and conditions of such loan and price guarantees and other financial incentives that would have a similar market impact, and to ensure that the adoption of a federal incentives program does not impede movement toward the fundamental actions needed to improve the climate for private investment in the energy sector.

Officials recognize that present policy regarding federal financial assistance represents an unsatisfactory compromise between belief in maximum reliance on regulatory reform plus policy changes to facilitate private energy investment, and the need to accelerate the development of new energy sources. The current policy has had to take account of many political and practical difficulties. Therefore, policy makers have accepted the need for federal financial assistance in certain circumstances. However, in doing so they have been careful to point out that such assistance must not substitute for regulatory reforms and policy changes as the only appropriate long-term solution.

The financing of U.S. energy requirements will clearly be a high priority issue for the incoming Administration and the new Congress, says Niehuss. The present Department of the Treasury clearly has a strong preference for an approach which strengthens the ability of private markets to meet this challenge. The belief is that if needed market-oriented actions are *not* taken, U.S. dependence on oil imports will increase even further.

Were this to happen, the serious economic and national security implications of increased vulnerability to foreign oil supply and price manipulation would inevitably lead to increased pressure for direct Federal Government action to deal with the problem. Included among these actions would almost certainly be further proposals for direct federal financial assistance to, or actual involvement in, the energy industry.

To avoid this requires recognition that a solution maximizing the role of the private sector will assure the most efficient allocating of resources and hence ultimately be the least costly to the nation. Decisionmakers should also recognize that many of the barriers to achieving private financing of needed energy projects are a result of government regulation and control of the energy industry.

Most of these difficulties could be overcome by timely and innovative regulatory action and through removal of other government impediments to the development of energy resources, says Niehuss.

"The country should not turn to federal financial assistance as a long-term substitute for needed regulatory reforms and policy changes. Rather, now is the time to move forward as rapidly as possible with policy changes and regulatory reforms which will strengthen the ability of private firms to attract needed capital." ☆

The financing of U.S. energy requirements will clearly be a high priority issue for the incoming Administration and the new Congress . . .

Energy Digest

BACK TO THE WIND . . . If R & D announcements are any indication, Don Quixote would find plenty of new windmills to tilt with these days. The only difference is they're called wind-turbines now, and they're considerably more sophisticated than the old wood rotors of La Mancha. In the last few weeks the Commerce Business Daily has published four ads for wind-power development projects sponsored by several government agencies. In the same period it has also synopsized dozens of ads for more conventional energy projects in the areas of geothermal, nuclear and solar research. For a free sample copy of Commerce Business Daily, write to: Commerce Business Daily, Room 1304, 433 W. Van Buren St., Chicago, 60607.

BYPASSING PRETREATMENT . . . A major step towards producing fuel gas from troublesome caking coals has been reported by the Westinghouse Electric plant at Waltz Mill, Pa. Eastern coals that cake, or lump together under heat and pressure, have a tendency to clog reactor vessels and disrupt process operations. Now, these coals have been processed in a small experimental unit at Waltz Mill without the necessity for pretreatment. The Energy Research and Development Administration considers this a major accomplishment because the Westinghouse technique can be adapted to other current or future coal gasification processes. Normally, pretreatment consists of oxidizing the surface of the coal with hot air or oxygen. This is costly and inefficient because it requires additional equipment and involves a loss in energy from the coal. Low Btu gases derived from coal could be used to generate power and thereby release premium fuels for more specialized uses.

SALTING IT AWAY . . . The Federal Energy Administration has identified eight possible sites in four states capable of storing up to 365 million barrels of crude oil. The sites are the first to be given detailed evaluation for possible oil storage under the Federal Government's Early Storage Reserves (ESR) Program, which calls for a reserve of stored crude oil to be on tap by the end of 1978. Much of this reserve would be stored in huge caverns called salt domes, many of which are located in the Gulf States and in salt limestone mines in the South and Midwest. The proposed sites are the West Hackberry and Bayou Choctaw salt domes in Cameron and Iberville Parishes, La.; the Bryan Mound salt dome in Brazoria County, Texas; the Weeks Island and Cote Blanche salt mines in Iberia and St. Mary Parishes, La.; the Kleer Salt Mine in Van Zandt County, Texas; and limestone mines in Central Rock, Ky. and Ironton, O. Not all eight sites will be needed because the Early Storage Reserves Program calls for only 150 million barrels to be set aside.

AID FOR COMMERCIAL BUILDINGS . . . ERDA plans to provide support for 35 to 50 new solar heating or cooling systems in commercial buildings. ERDA will provide a total of approximately $7.5 million to fund the solar energy systems on a cost-shared basis. The awards are expected to be announced in February. This will be the second phase of support for non-residential projects as part of the national program to demonstrate the practical use of solar energy for heating and cooling buildings and for heating water for domestic and commercial uses. In the first cycle 34 projects were selected from 308 proposals submitted.

BETTER GAS MILEAGE . . . 1977 cars will average 6 percent better gas mileage than 1976 models, and 34 percent better than 1974 models, according to the Environmental Protection Agency and the Federal Energy Administration. Model-by-model gas mileage, related to car size and other information, is contained in the 1977 Gas Mileage Guide for new car buyers. More than 12 million copies of the guide will be distributed to some 25,000 new car dealers, who are required by law to display the pamphlet in their showrooms. In addition to listing in the guide, the annual gasoline cost of each car and the range of fuel economies of comparable vehicles will be listed on stickers on the windows of all new autos and light trucks. Single copies of the guide may also be obtained from Fuel Economy, Pueblo, Colorado 81009. For bulk copies write: Fuel Economy, FEA, DPM, Room 6500, Washington, D.C. 20461.

APARTMENT STUDY . . . Energy-saving measures in apartments will be the subject of an energy cost reduction program jointly sponsored by the Federal Energy Administration and the National Assn. of Realtors' Institute of Real Estate Management. The ownership and management efficiency of the nation's 186,000 apartment buildings obviously has major energy-saving potential. The study is the fourth of seven slated under FEA's Small Business Energy Cost Reduction Program.

Conference Considers Future Of Productivity

INTERNATIONAL EXPERTS LOOK AT PROSPECTS THROUGH 1990; SEE GOOD CHANCE FOR GROWTH

Vice President Nelson Rockefeller called for "a new framework for enlightened cooperation between government and the private sector to call into full play the dynamism of the American free enterprise system" at a recent conference on the future of productivity.

Rockefeller keynoted the Washington, D.C., conference which was sponsored jointly by the National Center for Productivity and Quality of Working Life (of which Rockefeller is chairman), the Council on International Economic Policy, and the National Science Foundation.

Rockefeller pointed out that "A realistic examination of the history of the American enterprise system reveals that it is by no means a totally private enterprise endeavor. Government has always played a significant and crucial part in our economic development. And since our nation's beginnings, cooperation between the public and private sectors has been fundamental to the extraordinary progress of science and technology.

"We need to direct our attention to these critical areas: cooperation between labor and management to improve productivity; government support and encouragement of science and technology; increased capital formation and willingness to take investment risks; greater government incentives to the private sector to stimulate economic expansion, which has been so indispensible to our past growth; reform of government regulation to achieve social objectives—without inhibiting productivity; increased productivity in the public sector, and better public understanding of the necessity of improving productivity."

Critical areas outlined

In citing the need for increased capital formation and risk-taking investment, Rockefeller noted that "the percentage of America's Gross National Product devoted to capital formation and industrial investment has been declining steadily. In fact, our nation's capital investment as a percentage of the GNP is the lowest of any industrialized country. The time is overdue for action to reverse this situation. Three areas of our economy need increased capital investment: modernization of industrial plants and equipment; the development of energy independence; and revitalization of the housing industry. We need to develop a consensus among business, labor and government as to the monetary and fiscal policies that best foster adequate capital growth in these industries.

"The success of a national productivity improvement policy depends upon broad support from every American. To gain this support, it is essential that the nature and extent of the nation's productivity aims be known."

Luncheon speaker Herman Kahn, director of the Hudson Institute, sees a closing gap between rich and poor within the next 200 years. He cited a per capita income worldwide of $1,500 and referred to the so-called population explosion as a Gross World Product explosion. He also claimed that increasing productivity in developed nations would widen the income gap worldwide, and questioned the desirability of this.

He cautioned of the danger of spending time and resources on major issues which he considers solvable despite their present controversy, such as environment, energy, food supply and use of technology, and not devoting enough study to what he considers the great issues of the future, which he sees as potentially diastrous. Among the latter he cites the role for good or evil of science and advanced technology; the effects of U.S. post- and super-industrial economies on environment, society and culture of the United States and the world; parallel developments in other countries; and issues relating to values, morals, arms control and control of violence.

The consensus of a number of experts on international productivity, who presented papers at the conference, is that the prospects are good that the rate of growth in productivity and in GNP will continue upward in the period to 1990.

The U.S. Bureau of Labor Statistics projects an output per manhour growth rate of 2.4 percent for the 1973-80 period, compared to the long-term rate of 2.9 percent and 2.7 percent for 1980-85.

Edward F. Denison, senior fellow of the Brookings Institution, generally concurs with these projections, and says that an increased capital-labor ratio and changes in the workforce will favor continued productivity growth.

Workforce changes beneficial

"Changes in the composition by age and sex of total hours worked will be much more favorable to productivity growth in the 1980s than they have been at any time since 1948-53," according to Denison.

Productivity in agriculture as measured by all factors of input is expected to grow by 1 percent annually through the year 2000. Yao-Chi Lu and C. Leroy Quance of the Department of Agriculture say that an increase in technological development could conceivably make the growth rate even higher, but this will require greater investment in research and development.

Research by Roger E. Brinner, senior economist and director of long-term studies at Data Resources, Inc.; indicates that capital formation will be adequate to sustain an annual output per manhour growth rate of 2.6 percent through 1990, and that there will be a sufficient increase in the capital-labor ratio for continued growth in per capita output.

Theodore Levitt, professor of business administration at Harvard University, says that the so-called "productivity problem" in the service industries will be solved by an emphasis on the management of people in a post-industrial society.

Manufacturers, he pointed out, do not expect to improve productivity by asking their workers to try harder . . . "Instead of looking primarily to the performers of the tasks to improve the results, manufacturing looks first at the design of the task to be performed."

Levitt cited numerous examples of service industries that have been made

more productive through use of science and technology as well as better management. These included replacing an entire watch works at no greater expense than repair work would cost; the use of staples to tie off arteries in medical operations; automatic check-cashing machines; fast food franchises which are programmed to provide exactly the same food at each outlet, cooked and served in an identical manner; the self-service supermarket.

As the focus shifted to international productivity, Hugh Patrick of Yale University Economic Growth Center stated that the future productivity growth rate in Japan will be less than in the 1960s, but gains in both productivity and GNP will still be ahead of those in the United States and Western Europe. Patrick predicts a real GNP growth rate averaging 6-7 percent annually, with labor productivity increasing at about 5.5-6.5 percent.

Angus Maddison said that the factors leading to the extraordinary high productivity growth rates in Western Europe are diminishing. The output per manhour growth rate will slow to 3.8 percent in 1990, and the "gap" between Western Europe and the United States will disappear. Maddison is chief of the division of central analysis in the OECD's Social Affairs, Manpower, and Education Directorate.

Ray of sunshine for U.K.

Various favorable factors in the United Kingdom could launch the British economy toward faster growth in both productivity and output. George Ray, senior research fellow at the National (United Kingdom) Institute of Economic and Social Research, said that future growth depends upon the success of the industrial reorganization, continued labor peace, and improved use of existing industrial capacity.

"To achieve these goals," according to Ray, "those 'in charge' and the public at large will have to adjust attitudes and recognize the need for economic advance, the creation of an atmosphere of confidence, improvement in the competitive position, and the purposeful steering of the economy at all levels towards the attainment of the more ambitious targets."

The conference also heard from Dr. Simon Ramo, chairman of the President's Committee on Science and Technology, and vice chairman of the board of TRW, Inc.

1976 Foreign Visitors Show Increase Over '75 In First Three Quarters

More than 14 million international visitors arrived in the United States during the first nine months of the 1976 Bicentennial Year, according to Commerce's United States Travel Service. The arrivals reflected an increase of 12 percent compared to the same period in 1975.

During September, international arrivals in this country totaled more than 1.5 million, 18.6 percent ahead of the September 1975 level.

Through the first three quarters of the year, Canadian arrivals in the United States numbered nearly 9.1 million, increasing 11.4 percent over the same period in 1975. On the other hand, arrivals from Mexico declined 3.8 percent from the 1975 level, and further decreases are expected in view of devaluations of the Mexican peso.

During the same period, arrivals from countries other than Canada and Mexico increased 22.6 percent over the 1975 volume. Travel was up from all major geographic regions, with increases ranging from 12.1 percent for Asian visitors to 35.9 percent for visitors from Oceania.

Europe, the largest supplier of visitors from abroad, was the source of 22.6 percent more arrivals than were recorded for the comparable period in 1975. Japanese arrivals were up 0.2 percent.

Significant increases in international travel to the United States also were recorded for Venezuela, up 48.8 percent; Australia, up 40.4 percent; and Brazil, up 16.4 percent. The increase in Brazilian travel to this country for the period seems to indicate that the Brazilian government's decree restricting outbound international travel is having only limited effect.

Examining international arrivals during the month of September alone, Canadian travel to this country exceeded one million, 23.8 percent ahead of the September 1975 level. Conversely, total arrivals in the United States from Mexico in September were down by nearly 40,000, or 19.9 percent, from the same period in 1975. This marked decline indicates the impact of the first devaluation of the Mexican peso which occured during September this year. It is expected that this deterrent to outbound Mexican travel may result in even greater decreases in travel to this country in the months to follow.

On the positive side, arrivals from countries other than Canada and Mexico in September increased nearly 23 percent over the previous September's total, with Asian travel showing the greatest increase thus far this year, up 34 percent. This rise was largely the result of a significant 33.1 percent increase in Japanese arrivals during the period, continuing an upward trend in travel from that country.

New Guide Aimed At Corporation Advisers

Detailed step-by-step information for the professional adviser on organizing and operating the professional corporation is contained in *Servicing the Professional Corporation: A Complete Manual and Guide*. The book supplies examples of tested techniques for obtaining maximum tax savings, deciding on fringe benefits and retirement plans, and expanding, contracting and liquidating a corporation.

In addition, the book contains examples, illustrations, charts, forms, checklists and estate planning techniques.

Copies can be obtained for $29.95 each from Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632 (201-592-2489).

Experts Study Obstacles To Mining Ocean Minerals

Once upon a time the idea of extracting mineral wealth from the sea was considered an exercise in make-believe. Now, very hard-headed experts are mapping out how to go about it.

A broad-scale look at the problems of marine minerals development and suggestions on ways to overcome them recently emerged from a Marine Minerals Workshop sponsored by Commerce's National Oceanic and Atmospheric Administration.

Eighty experts from industry, government, higher education, and the public met in the three-day workshop earlier this year to pool ideas on future directions of marine hard minerals development.

Sponsored by NOAA's Office of Marine Minerals, the workshop brought together for the first time a large group of experts to define the critical problems in this field and draw up recommendations for government and industry to follow in reaching solutions.

Prospects for four groups of commodities are analyzed: manganese nodules; sand, gravel, and shell; phosphorite and hard rock, and marine placers. Each was looked at from the viewpoints of environmental considerations, legal and economic constraints, resource research and assignment, and technology.

Single free copies of the proceedings can be obtained from the Office of Marine Minerals, National Oceanic and Atmospheric Administration, 6010 Executive Blvd., Rockville, Md. 20852, and additional copies can be purchased from the National Technical Information Service, U.S. Department of Commerce, Sills Bldg., 5285 Port Royal Road, Springfield, Va. 22151.

POLLUTION CONTROL EXPENDITURES RISE

Manufacturing establishments spent 17 percent more for pollution abatement equipment in 1975 than in 1974, according to the latest Bureau of the Census figures. Total capital expenditures were $3.637 billion in 1975, compared to $3.101 billion in 1974.

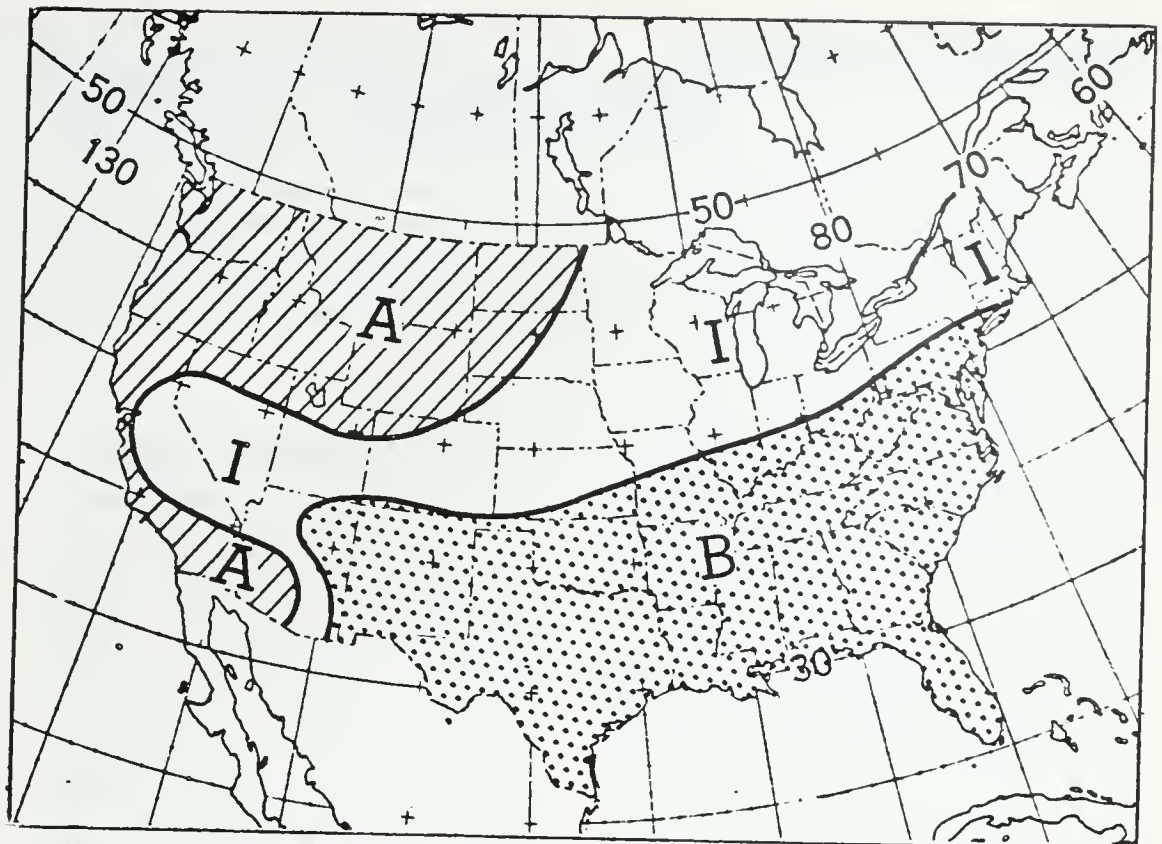
Operating costs for pollution abatement also increased sharply and in almost the same proportion. Firms spent $3.662 billion in 1975, while the year before they spent $3.103 billion.

The largest single increase in 1975 pollution abatement capital expenditures was in the chemicals industry, which spent $780 million, a $241 (45 percent) increase over 1974. Following closely behind was the primary metals industry, which increased 29 percent or $187 million to $834 million. The paper and petroleum industries also showed sizable increases.

Leading the industries showing decreases in pollution abatement capital expenditures was the stone, clay and glass products industry group, which declined $35 million to $174 million.

Nearly all industries showed increases in operating costs for pollution abatement.

The complete report, *Pollution Abatement Costs and Expenditures (in manufacturing), 1975*, will be available from the Census Bureau in about two months.



SOME BETTER, SOME WORSE—*The area marked "A" has a 60 percent chance of having above normal temperatures through February, while the "B" area has the same odds of having below normal temperatures during the same period, according to the National Oceanic and Atmospheric Administration's National Weather Service. Area marked "I" is indeterminate or 50-50, according to the Commerce agency.*

Meeting Will Assess Man's Impact On Ozone

Experts from around the world will convene in Washington next March to assess the effects of human activities on the stratospheric ozone layer.

The meeting is being convened by the United Nations Environment Program (UNEP) and will be hosted by the United States Government.

The conference will stress the scientific aspects of man's impact on the ozone layer. Activities as diverse as the use of fluorocarbon chemicals and the emissions of high flying aircraft may create this impact. Changes in the ozone layer caused by such activities may in turn significantly affect man.

A major purpose will be to examine work currently under way or planned in various countries and international institutions. The meeting will consider work being done on the physical and chemical aspects of the ozone layer as well as the wide range of known and potential effects of ozone depletion on climate, health, agriculture, and other areas.

The meetings will be held in the Department of State. Commerce's National Oceanic and Atmospheric Administration (NOAA), a leading U.S. agency in stratospheric ozone research and monitoring, will serve as co-host. The meeting is being held in response to a decision of UNEP's Governing Council calling for a meeting "of appropriate international, governmental and non-governmental organizations to review all aspects of the ozone layer, identify related ongoing activities and future plans, and agree on a division of labor and a coordinating mechanism" for the conduct of future scientific work in the area.

The meeting also will seek agreement on whether and where significant research gaps exist, and will make recommendations for coordination of work to ensure that optimal use is made of the resources available.

Private Productivity Up 3.8% In Third Quarter

Productivity in the private business sector in the third quarter of 1976 advanced 3.8 percent, at a seasonally adjusted annual rate, according to preliminary measures from the Department of Labor's Bureau of Labor Statistics. In the nonfarm business sector, output per hour of all persons increased 3.6 percent, while in manufacturing the increase was 5.7 percent.

Unit labor cost, which reflects change in hourly output and hourly compensation, increased 3.4 percent in the private business sector and 3.2 percent in the nonfarm business sector, while declining 1 percent in the manufacturing sector.

The third quarter productivity increase in the private business sector was the smallest quarterly gain in output and hours this year. It represented an output gain of 4 percent and an increase in hours of 0.2 percent. In the second quarter, when productivity also rose 3.8 percent, output rose 5.5 percent and hours rose 1.6 percent. Although employment was up 1.6 in this sector in the third quarter, average weekly hours declined 1.4 percent, the second consecutive quarterly decline.

The nonfarm business sector productivity advance of 3.6 percent in the third quarter is the smallest in 1976. Output was up 4.1 percent and hours increased 0.5 percent. In the second quarter, productivity had increased 5.4 percent, output was up 5.4 percent, and hours were up 0.1 percent. Employment continued to grow in the third quarter, up 1.6 percent, but average weekly hours declined 1 percent.

The 5.7 percent advance in productivity in the manufacturing sector contrasts with an 8.7 percent rise in the previous quarter. Output rose 6.5 percent and hours of all persons increased 0.8 percent. Employment (up 0.5 percent) and average weekly hours (up 0.3 percent) were both somewhat higher in the third quarter than in the second.

Further information is available from the Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20210.

SMALL BUSINESSES GET BOOST FROM NEW REPORT

Small businesses nationwide stand to benefit from a recently-issued report sponsored by Commerce's National Bureau of Standards.

The Small Business Administration has already responded favorably to a recommendation in the NBS-funded study that it step up its intervention in the regulatory rule-making process.

The study, supported by NBS' Experimental Technology Incentives Program (ETIP), said this was the "single most cost-effective step that the Small Business Administration could take to alleviate the impact of technology-imposed legislation and regulations on small business."

Recently, SBA elevated and expanded the office of the Chief Counsel for Advocacy which will be the focal point for such intervention in the rule-making process.

The study has also affected SBA's relationships with other federal agencies. For example, the Occupational Safety and Health Administration (OSHA) is working with SBA to contact small businesses and offer assistance and advice in meeting OSHA regulations. The Environmental Protection Agency is increasing the small businessman's awareness of SBA's Economic Injury Program, which provides relief to small businesses that might otherwise suffer substantial economic injury as a result of environmental regulations.

SBA will provide technical assistance to small businesses to enable them to understand the technical requirements of new regulations. SBA's Technology Utilization Program is establishing an inventory of available technology and transferring this information to the small business sector.

Several bills introduced in the most recent session of Congress complement the recommendations in the NBS-SBA report. For example, H.R. 14405 would amend the OSHA enabling legislation by requiring on-site consultation with small businesses when enforcing OSHA regulations.

The report, entitled *The Impact on Small Business Concerns of Government Regulations that Force Technological Change*, is available through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Ask for stock number 045-000-00144-0; the price is $3.90). The 217-page report was prepared for ETIP by Charles-waters Associates, a Boston consulting firm.

The Experimental Technology Incentives Program is an attempt to incorporate the benefits of technology into the economy as rapidly as possible. One major technique is through federal procurement of items incorporating the latest innovations, as well as streamlining governmental regulatory processes. ETIP finances cooperative projects with other government agencies—federal, state and local. Its activities center on four broad areas: procurement, regulation, civilian research and development, and help to small technologically-dependent firms.

15-Year 'Super Survey' Ends; To Key All U.S. Land Studies

A 15-year transcontinental survey to upgrade the national network of distances which serves as the basis for all surveying in the continental United States was completed in November.

A field party from the National Geodetic Survey, a component of Commerce's National Oceanic and Atmospheric Administration, closed a gap in the network between Gaylord and Mt. Pleasant, Mich., on Nov. 30, completing an effort begun in 1961 at Cape Canaveral, Fla.

The project's completion will represent the most accurate survey of this size ever done in any country on earth, and its results will serve engineers, surveyors, and scientists for many years.

Known as the High-Precision Transcontinental Traverse, the project provides data for tracking space satellites and missiles, and for detecting and evaluating long-term crustal movements. It also provides the network which is the basis for all types of surveying, including locating permanent boundaries, planning the alignment of highways and public utilities, and mapping natural resources.

The survey was begun at Cape Canaveral to position satellite tracking cameras along the east coast of the United States. In order to meet accuracy requirements, a system of high-precision traverse networks was developed, permitting measurements so precise that error is less than one inch (2.5 centimeters) in ten miles (16 kilometers).

Since 1961, field parties have determined the geographic positions (latitude and longitude) of more than 2,750 sites, spaced at intervals of approximately ten miles along the 13,660 mile (22,032 kilometer) route in 44 states.

Guide Lists Consumer Contacts In Washington

The question: name a better guide to Washington consumer specialists than *Capital Contacts in Consumerism*. The answer: the revised and updated edition, now available from Fraser/Ruder & Finn. The first edition of the guide, published last year, contained listings of consumer activities and services, and addresses and phone numbers of consumer personnel in government, Congress, consumer groups and the media, among others. It told whom to contact for consumer information or assistance with a customer problem.

This year's edition also includes corporate consumer representatives, more media contacts, additional federal agencies—and up-to-date explanations of the functions of each.

Further information about *Capital Contacts In Consumerism* may be obtained from the Publications Manager, Fraser/Ruder & Finn, Suite 1006, 1800 K St. NW., Washington, D.C. 20006 (202-452-1188).

Domestic Apparel Industry Calls Its Outlook Good

The biennial economic profile of the apparel industry reports an improved long-range outlook for the domestic portion of the industry. *FOCUS: An Economic Profile of the Apparel Industry* was produced by the marketing committee of the American Apparel Manufacturers Assn.

It reports that with a reduced inflation rate, de-emphasis on the energy problem and greater consumer confidence, the apparel industry can look forward to a relatively good future. Problems still remaining, however, include continued unemployment, present inflation and increasing apparel imports.

The overriding concern of the apparel industry, according to the report, is not increased demand for apparel but rather how much of that demand will be satisfied by domestic production and how much will be met by increased imports.

FOCUS predicts a rapid increase in imported apparel in the next two years because allowable levels for imports in many areas are well above existing import levels. Growth in imports should slow, though, once these levels are met.

Of concern, also, is the change in the level of quality and type of apparel being imported in the last two years. Rather than strictly discount and budget merchandise as in the past, imported apparel is now higher in quality and price and can be found in all retail outlets.

FOCUS includes charts and tables of data indicating increase in cost and price of various commodities, wage comparisons, and characteristics of apparel industry workers.

AAMA members and associate members receive complimentary copies of FOCUS. Additional copies are available at $25 for nonmembers, $10 for members, from AAMA, Suite 800, 1611 N. Kent St., Arlington, Va. 22209 (703-524-1864).

Specialty Steel Firms: Is Import Relief Working?

Commerce has released the second in a series of quarterly reports designed to review conditions in the U.S. specialty steel industry while import relief is in effect.

The report highlights data on apparent consumption and import/consumption ratios developed by the Department's Office of Import Programs following President Ford's temporary imposition of quantitative limitations on specialty steel imports.

The import relief may be relaxed or removed at any time prior to the end of the three-year period which began June 14, if the President finds, upon advice from the U.S. International Trade Commission (USITC) and the Secretaries of Commerce and Labor, that the domestic industry is regaining a healthy production and employment position.

In order to review the effectiveness of the restraint program and the industry's economic condition, a monitoring system was initiated to provide pertinent data on a current basis.

The report includes data on shipments, imports, exports, apparent consumption, and import/consumption ratios by calendar quarters for the years 1974 and 1975 and the first three quarters of 1976. The data on producers' shipments were gathered originally by the USITC on the basis of responses to questionnaires. The data on imports and exports are official data of the Department's Bureau of the Census.

Freight Consolidation Guild Is Published

Shippers prefer small consignments of freight . . . . carriers emphasize large volume movements. The middle ground of freight consolidation may resolve these conflicts for many companies, and *A Guide To Freight Consolidation For Shippers* by Malcolm J. Newbourne tells how to do it.

Newbourne points out that freight consolidation—the groupings of shipments before turning them over to a carrier—may well provide transportation cost savings such as lower rates, faster service, fewer claims, lower loss/damage ratio and reduction in administrative workload. He provides arguments that can be used to sell the sales department and win its cooperation in the freight consolidation effort, and illustrates how traffic department activities can be organized so as to uncover as many consolidation opportunities as possible.

The Guide may be obtained from The Traffic Service Corp., 815 Washington Bldg., Washington, D.C. 20005 (202-783-7325). It is priced at $5.25.

Calendar Of Business Events

Dec. 6-8—Gaithersburg, Md.—Bicentennial Winter Simulation Conference, National Bureau of Standards. Contact: Paul Roth, B250, Tech. Bldg., NBS, Washington, D.C. 20234 (301-921-3545).

Dec. 7—New York—An Evaluation Update of America's Voluntary Standards System, N.Y. Sheraton Hotel. Contact: American National Standards Institute (212-868-1220).

Dec. 7-9 — Cleveland — Drawing Sheet Metal Clinic, Sheraton Inn-Hopkins. Contact: Society of Manufacturing Engineers, P.O. Box 930, Dearborn, Mich. 48128 (313-271-1500).

Dec. 7-9—Chicago—Electrical Discharge Machining Clinic, Hyatt Regency O'Hare Hotel. Contact: SME, see address above.

Dec. 8-10—Chicago—Improving Customer Service, AMA Management Ctr., O'Hare Airport. Contact: Richard Johnson, AMA, New York (212-586-8100).

Dec. 9-10—Washington, D.C.—New Directions in Competitive Procurement—1977, Ramada-Rosslyn. Contact: American Institute of Aeronautics and Astronautics, P.O. Box 1710, Long Beach, Calif. 90801 (213-437-7465).

Dec. 9-10—Houston—Executive Self-Management, Hyatt Regency Hotel. Sponsor: The Wharton School. Contact: Heidi Kaplan, New York Conference Mgt. Ctr., 360 Lexington Ave., New York 10017 (212-953-7266).

Dec. 12-14—Andover, Mass.—Product Opportunities in Graphic Communications, Institute for Graphic Communication Conference Ctr. Contact: IGC, 375 Commonwealth Ave., Boston, Mass. 02115 (617-267-9425).

Dec. 13-15—Chicago — Automation of Manufacturing Operations, Hyatt Regency O'Hare. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Dec. 13-15—Chicago — Project Management, Hyatt Regency O'Hare. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Dec. 13-15—Chicago Welding, Hyatt Regency O'Hare. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Dec. 13-15—Chicago Machining, Sheraton Plaza. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Dec. 13-16—Kansas City—Seminars on management and financing in the construction industry, conducted by Jack Miller. For information, Madeline Graeter, Group Communications, Inc., 6101 Southwest Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

Dec. 14-16—Andover, Mass.—The Home Marketplace of the Future for Visual Communications & Information Products, Institute for Graphic Communication Conference Ctr. Contact: IGC, see address above.

Jan. 5—Gaithersburg, Md.—Symposium on Commodity Supply Policy, National Bureau of Standards. Contact: Gregory Tassey, A 735, Admin. Bldg., NBS, Washington, D.C. 20234 (301-921-3171).

Jan. 10-12—Gaithersburg, Md.—Workshop on Applications of Phase Diagrams in Metallurgy & Ceramics, National Bureau of Standards. Contact: Ronald Johnson, B 348, Materials Bldg., NBS, Washington, D.C. 20234 (301-921-2835).

Jan. 10-12—Washington, D.C.—Improving Managerial Skills, Georgetown Univ. Contact: Betsy Girton, Continuing Mgt. Education, Georgetown Univ., RCA Bldg.-Education Ctr., 1901 N. Moore St., Rosslyn, Va. 22209 (703-525-6300).

Jan. 10-12—Washington, D.C.—Management by Objectives, Georgetown Univ. Contact: Betsy Girton, see address above.

Jan. 11-12—Chicago—Food Industry Instrument Needs, Holiday Inn O'Hare/Kennedy. Contact: Registrar, Instrument Needs Seminar, Suite 2155, 2 N. Riverside Plaza, Chicago, Ill. 60606 (312-346-3942).

Jan. 12—Houston Selection Interviewing: Strategies, Tactics & Skills Practice, Shamrock Hilton Hotel. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Jan. 14—New York Selection Interviewing: Strategies, Tactics and Skills Practice, Barbizon Plaza Hotel. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Jan. 14—Sacramento Business Opportunity Federal Procurement Conference, Convention Ctr. Sponsor: Rep. John E. Moss. Contact: Jerry Wymore, c/o Rep. Moss, 650 Capitol Mall, Room 8058, Sacramento, Calif. 95814 (916-440-3543).

International Commerce Report

World Import Markets In Moderate Expansion

DEMAND IS SPURRED BY ECONOMIC RECOVERY IN INDUSTRIALIZED NATIONS; U.S. SHARE MIXED

A majority of the 50 free-world trading nations reported increases in the U.S. share of their import markets during the latest 12 months for which data are now available. More than half of these nations shown in the accompanying table also reported an increase in the value of the goods which they imported from the United States, although, as in the previous quarterly report in this series, few steep increases were recorded.

The increase in the value of world trade is largely the result of the continuing recovery in the economies of the industrialized countries, which spurred the demand for imports. In addition, the prices of exported goods during the first half of 1976 have risen by very modest amounts compared to the previous few years. This restraint in price increases has been attributed primarily to the careful demand management policies by the governments of the large developed countries as they have recovered from recession. Finally, the continuing appreciation of the U.S. dollar against most of the major world currencies has moderated increases and magnified decreases of imports valued in dollars.

Among the developed countries, the U.S. gains in market shares were mixed. In the ten largest import markets, the U.S. share rose in the German Federal Republic, Canada, Belgium-Luxembourg and Sweden and declined in the remaining six nations. With few exceptions, the smaller developed countries posted little change in the U.S. share of their import markets.

The best U.S. share performance was recorded among the developing nations (LDCs), where the number of U.S. share increases were nearly triple the declines. Even in many of those countries where the share fell, the value of imports from the United States rose by substantial amounts. The OPEC countries, in particular, registered pronounced gains in the value of their U.S. purchases.

The Federal Republic of Germany, which is the largest trading nation in the Western world after the United States, increased the value of its imports from the United States by 13 percent. Since imports from other areas rose less rapidly, the U.S. share increased as well. Strong demand for U.S. chemical products, electrical equipment and defense items more than offset reduced sales of aircraft and corn.

The value of U.S. goods imported into France rose moderately. In contrast, the U.S. share of this import market declined as the French imported a greater amount from the rest of the world. U.S. arrivals in France were paced by construction and mining equipment, and medicine and pharmaceuticals, while only U.S. aircraft sales declined by a significant margin.

U.S. imports into Japan, Italy and the United Kingdom decreased in both value and share of total market. The sharp drop in Japan reflected declining demand for U.S. aircraft, iron and steel scrap, coal and non-ferrous metals which more than offset increased Japanese purchases of meat and chemicals. The devaluation of the Italian lira and the British pound sterling against the dollar partially explains the decline in the U.S. share of the British and Italian import markets. The United Kingdom recorded large declines in the value of U.S. coal, textiles and aircraft imports while Italian demand for U.S. aircraft, oilseeds, copper, and paper products also weakened.

Large upturns in Canadian demand for U.S. motor vehicles, especially new sedans and motor vehicle parts, largely accounted for the increased value of U.S. imports. This contributed to the increase in the U.S. share of the Canadian import market.

A modest increase in the U.S. trade share occurred in the Belgium-Luxembourg market, as the value of imports from the United States rose somewhat more rapidly than from the world. Demand for U.S. products increased in nearly every commodity group, particularly for aircraft, tobacco, soybeans, and medicines and pharmaceuticals.

The Netherlands and Spain both showed a slight decline in the U.S. values and shares of their import markets in contrast to the preceding three quarters, in which these measurements either increased or remained constant. Sizable decreases in the purchase of U.S. corn, aircraft, and office machines by the Netherlands more than counter-balanced their modest advances in most other U.S. commodities.

The U.S. performance among the smaller developed nations was mixed. The rise of U.S. sales in the shrinking import markets of South Africa and Israel produced a U.S. share increase of more than 10 percentage points in each of these two nations. In Israel, a massive increase in military spending on U.S. weapons more than offset moderate declines in most other import categories.

A large decline in the value of U.S. entries into a moderately expanding Greek import market resulted in the greatest U.S. share decline among the industrialized countries. Significant declines in U.S. import levels and shares were also registered in Switzerland and Finland. Paced by greatly increased demand for soybeans and aircraft, the value of U.S. imports into Denmark rose; the U.S. share dropped, however, as Danish imports expanded more from other areas than from the United States.

LDCs, particularly OPEC members, registered sizable increases in the value of products from the United States. The value of U.S. imports increased in the nine countries that export large quantities of oil and oil products. Only in Nigeria did the U.S. record a lower share position. U.S. imports into Mexico, our largest LDC trading partner, increased in value as well as in share. Marked advances in the U.S. position were recorded in India, the Philippines and Pakistan. In India, the increased demand for cereals, non-electrical machinery and aircraft was especially strong. U.S. share losses in most LDC markets were held to modest drops, except in Morocco where a sharp decline occurred.

World Market Report

The 50 markets shown below accounted for 88 percent of 1975 imports into all free-world markets and 89 percent of imports from the U.S.

Values in millions of dollars

Published quarterly

Importing country	1975 Imports: From world	1975 Imports: From U.S.	1975 Imports: U.S. share %	1975 Imports: U.S. share excl. oil %	1976 Imports January through latest month: Latest month	1976: From world	1976: From U.S.	1976: U.S. share %	1976: U.S. share excl. oil %	Import change in latest 12 months*: From world %	Import change: From U.S. %
Germany, Fed. Rep.	74,208	5,749	7.7	9.0	Aug.	56,136	4,408	7.9	9.2	+ 10	+ 13
Japan	57,840	11,619	20.1	31.1	Aug.	41,937	7,731	18.4	28.6	+ 5	— 9
France	53,266	4,075	7.6	9.2	Aug.	41,106	3,054	7.4	9.2[1]	+ 11	+ 7
United Kingdom	53,265	5,204	9.8	11.7	Aug.	36,876	3,576	9.7	11.8	— 1	— 4
Italy	38,436	3,355	8.7	11.2	June	20,599	1,591	7.7	9.7[1]	+ 3	— 5
Canada	36,331	23,805	65.5	75.5	Sept.	30,354	20,013	65.9	77.6[1]	+ 8	+ 11
Netherlands	34,565	3,475	10.1	11.9	June	18,401	1,650	9.0	11.1	— (2)	— 2
Belgium-Luxembourg	30,632	1,947	6.4	7.0	June	16,213	1,031	6.4	6.6[1]	+ 3	+ 6
Sweden	17,871	1,184	6.7	7.8	June	9,049	616	6.8	7.9	— 7	— 1
Spain	16,262	2,585	15.9	20.4	Sept.	12,497	1,870	15.0	20.0	+ 1	— 2
Brazil	13,658	3,386	24.8	30.8	.....	.....	.....	.....	.....	— 4	— 1
Switzerland	13,284	1,010	7.6	8.3	Sept.	10,603	704	6.6	7.5	— 1	— 9
Australia	11,119	2,259	20.3	(3)	June	5,961	1,229	20.6	(3)	— 12	— 5
Iran	10,348	2,051	19.8	19.8	.....	.....	.....	.....	.....	+ 91	+110
Denmark	10,329	622	6.0	7.2	Aug.	7,787	387	5.0	5.7	+ 17	+ 8
Norway	9,754	696	7.1	7.5	Aug.	6,933	499	7.2	7.7	+ 5	— 1
Austria	9,392	275	2.9	3.2	Aug.	7,125	208	2.9	3.2	+ 10	+ 15
Singapore	8,126	1,278	15.7	20.7	July	4,987	698	14.0	(3)	— 5	— 9
Yugoslavia	7,697	417	5.4	5.8	June	3,498	181	5.2	5.9	— 9	— 2
Finland	7,609	421	5.5	6.4	Aug.	4,542	236	5.2	6.1	— 9	— 18
South Africa	8,326	1,475	17.7	(3)	Mar.	1,978	421	21.3	(3)	— 5	+ 9
Korea, Rep. of	7,274	1,881	25.9	31.6	June	4,005	894	22.3	27.6	+ (2)	— 7
Hong Kong	6,757	799	11.8	12.6	July	4,904	587	12.0	12.3	+ 28	+ 25
Mexico	6,580	4,108	62.4	(3)	Apr.	1,968	1,268	64.4	(3)	+ 3	+ 5
India	6,135	1,352[1]	22.0	(3)	.....	.....	.....	.....	(3)	+ 19	+ 88
Nigeria	6,004	681	11.3	(3)	Apr.	2,456	220	8.9	12.8[1]	+119[1]	+ 96[4]
Taiwan	5,960	1,655	27.8	31.8	June	3,512	839	23.9	26.7	+ 7	+ 3
Venezuela	5,946	2,830	47.6	(3)	.....	.....	.....	.....	.....	+ 41	+ 42
Greece	5,322	396	7.4	9.0	Apr.	1,663	120	7.2	8.2	+ 6	— 21
Indonesia	4,770	670	14.0	(3)	Apr.	1,414	239	16.9	(3)	+ 3	+ 38
Turkey	4,739	426	9.0	(3)	July	2,889	258	8.9	(3)	+ 2	— 3
Israel	4,116	905	22.0	(3)	June	2,064	468	22.7	(3)	— 5	+ 6
Portugal	3,996	485	12.1	13.9[1]	Apr.	1,206	90	7.4	8.8	— 28	— 21
Argentina	3,946	644	16.5	(3)	May	1,046	219	20.9	(3)	— 24	— 17
New Zealand	3,788	533	14.1	(3)	Mar.	835	110	13.1	15.4[1]	— 1	+ 6
Philippines	3,786	822	21.7	(3)	July	2,345	522	22.3	31.4	+ 6	+ 23
Ireland	3,769	272	7.2	8.3	Aug.	2,730	215	7.9	9.1	+ 6	+ 12
Iraq	3,529	305	8.6	(3)	.....	.....	.....	.....	(3)	+ 49	+ 62
Thailand	3,280	470	14.3	18.0	.....	.....	.....	.....	.....	+ 4	+ 11
Malaysia, West	3,118	333	10.7	12.2	.....	.....	.....	.....	.....	— 12	+ 2
United Arab Emirates	2,600	372	14.3	(3)	Feb.	406	52	12.7	(3)	+ 45[4]	+ 55[4]
Morocco	2,566	193	7.5	8.5	Apr.	938	70	7.5	(3)	+ 11	— 23
Bahamas	2,233	268	12.0	(3)	.....	.....	.....	.....	.....	+ 17	+ 14
Pakistan	2,131	269	12.6	15.3[1]	July	1,228	242	19.7	24.1	— 7	+ 7
Trinidad and Tobago	1,471	325	22.1	43.8	Mar.	475	92	19.4	40.5[1]	— 5	+ 51
Bahrain	1,189	92	7.7	(3)	Feb.	200	18	9.2	(3)	+ 5[4]	+ 14[4]
Jamaica	1,112	404	36.4	46.0	June	468	166	35.5	(3)	— 7	+ 5
Ecuador	943	379	40.2	40.2	.....	.....	.....	.....	.....	— 2	+ 6
Panama	870	232	26.7	(3)	.....	.....	.....	.....	.....	+ 9	+ 8
Oman	676	65	9.6	(3)	.....	.....	.....	.....	.....	+ 70	+110

Note: The countries shown above include the 50 major importers of U.S. merchandise in 1975 for which current data are available. Other oil-exporting countries, including Saudi Arabia and Kuwait, have become major markets for U.S. merchandise, but current trade data from these countries are not now available so they cannot be included in this tabulation. In order to present comparable statistics for all countries, import data have been adjusted from an f.o.b. to a c.i.f. valuation for Australia, Canada, Philippines, the Republic of South Africa, and Venezuela.

* Compared with preceding 12 months; percentages are based on total imports, including oil.

[1] Partly estimated. [2] Less than 0.5 percent. [3] Not available. [4] Import change from the year 1974 to the year 1975.

Source: Official Trade statistics of listed countries.

COMMERCE PROPOSES CLARIFICATIONS ON FORMS RELATING TO BOYCOTT

The Commerce Department is receiving public comments until Dec. 17 on proposed amendments of its reporting procedures with regard to the Arab boycott of Israel. The changes mainly concern the use of the term "comply" in the reporting forms, a term said to create public misunderstanding of company actions.

Currently, U.S. firms must report to the Department whether they intend to "comply" with a boycott-related request. It has been pointed out by the business community and others that "compliance" can mean a range of responses. If distinctions are not made, it is contended, there can be unfair inferences that the reporting firms are actively supporting the boycott, when in fact they may be simply furnishing information that does not require any change in business practices.

In proposing the changes, the Department makes clear that stated U.S. policy, as reflected in the Export Administration Act, does not differentiate between an active compliance with the boycott and a simple informational response. Nevertheless, in an effort to eliminate controversial inferences, the Department is proposing two changes:

First, it proposes to amend the "compliance" question to omit the word "comply" and to substitute in its stead language taken from the policy statement of the Export Administration Act, which uses the phrases "take the action, furnish the information, or sign the agreement requested."

Second, it proposes to amend the reporting form to state that firms may attach to the form any additional statement they feel is necessary or appropriate to explain the nature of their response to a boycott-related request. The Department would make this statement a matter of public record along with the report form.

The proposed changes would in no way

alter the requirement of current law that American firms report to the Department of Commerce the receipt of requests for action or information related to the Arab boycott and that they indicate on such reports the action they have taken or propose to take in response to the request.

Finally, the Department proposes a clarifying amendment to its regulations concerning certificates of origin. Consistent with past Department practices, this amendment would state that requests for affirmative certificates of origin, without particular evidence to the contrary, are not considered boycott-related requests and, therefore, would not fall within the Department's reporting requirements.

Affirmative certificates of origin (e.g., "the goods supplied are solely of United States origin")—in contrast to negative certificates of origin (e.g., "the goods are not of Israeli origin and do not contain Israeli materials")—are commonly used in international commerce for legitimate customs and commercial purposes, and are therefore not considered to come within the reporting requirements of the Department.

These changes would not alter in any way the policy of the Department of Commerce and the United States toward the Arab boycott. That policy continues to be to encourage and request American firms to refuse to take any action, including the furnishing of information, in response to boycott-related requests.

Persons wishing to comment on the proposed changes should write before Dec. 17 to the Director, Office of Export Administration, Room 1886C, U.S. Department of Commerce, Washington, D.C. 20230.

U.S., ROMANIAN LEADERS TREAT BUSINESS ISSUES IN BUCHAREST DISCUSSIONS

Major issues touching on trade, economic and industrial cooperation between the United States and Romania were treated at a meeting of officials of both nations in Bucharest last month.

The Third Session of the Joint American-Romanian Economic Commission was held Nov. 22-23. Secretary of Commerce Elliot L. Richardson headed the U.S. delegation, which included representatives of the Departments of Commerce, State, Treasury and Agriculture as well as the Council on International Economic Policy and the Office of the Special Representative For Trade Negotiations. The Romanian delegation was led by Deputy Prime Minister and Minister of Foreign Trade and International Economic Cooperation Ion Patan.

While in Romania, Secretary Richardson had the opportunity to meet with President Nicolae Ceausescu and other Romanian leaders.

Principal Joint Commission topics included:

- the two sides discussed current U.S.-Romanian trade levels as well as the potential for future trade.
- cooperation activities, including joint ventures and cooperation in third markets, were discussed with the Romanian side stressing its interest in cooperation with American firms in the following fields: electronics, computers, compressors, rolling mills, equipment for the chemical industry and geological exploration equipment.
- the two sides noted the importance of adequate business facilities and services for each other's firms and commercial personnel.
- the importance of contract fulfillment and accelerated commercial negotiations was also noted.
- the two sides discussed the exchange of basic economic information.
- trade promotion programs were outlined.
- a number of financial issues were discussed including Eximbank financing, CCC credits, and Romania's request for development assistance credits.
- a useful exchange of views took place regarding U.S. export control policy towards Romania and U.S. anti-dumping legislation and procedures.
- the two sides noted the signing and status of a number of bilateral agreements between the two countries.

During the meeting, the Commission received from the Romanian co-chairman of the Romanian-U.S. Economic Council a report on the Council's activities during this past year. The Commission reaffirmed its support for the work of the Council.

A ten-year agreement on economic, industrial and technical cooperation between the United States and Romania was signed by officials of the two nations just prior to the meeting.

The agreement sets forth general guidelines for long-term arrangements between firms and enterprises of the two countries. It protects investors against expropriation or impairment of their contractual rights by government action, and contains measures for improving business facilities and the provision of commercial information. It includes an annex designed to facilitate the establishment of U.S.-Romanian joint ventures and other forms of business cooperation on terms familiar to the U.S. business community.

The long-term cooperation agreement is intended to supplement, and not to replace, the U.S.-Romanian Trade Agreement, concluded with Congressional approval in August, 1975. Romania acquired Most-Favored-Nation treatment under that trade agreement, which remains subject to periodic review by Congress according to the requirements of the Trade Act.

Copies of the agreement may be obtained by writing to: Romania Desk, Bureau of East-West Trade, U.S. Department of Commerce, Washington, D.C. 20230.

U.S. Preferential System Seen Aiding Exporters In Latin American Nations

Latin American exports of products covered by the Generalized System of Preferences (GSP) of the United States apparently experienced a steep climb this year.

Discussing the early record of Latin American shipments to the U.S. under the recently-established GSP duty-free entry system, Harry Shlaudeman, Assistant Secretary of State for Inter-American Affairs, told the Association of American Chambers of Commerce in Latin America (AACCLA) that Latin exports this year under the GSP program showed an increase that was two-and-a-half times that of non-GSP products. Total Latin American sales to the U.S. of GSP items will amount in 1976 to about $1.2 billion, he reported to the Mexico City meeting last month.

Referring to the criticism that the GSP has been subject to by Latin American nations, Shlaudeman said that criticism concentrates mainly on two issues: on the exclusion of Venezuela and Ecuador from the GSP, and on the matter of products not included in the system.

He said that he hopes that Congress will act next spring upon an initiative proposed by the Executive Branch regarding the inclusion of Venezuela and Ecuador in the GSP.

With regard to the second issue, Assistant Secretary Shlaudeman said that there appears to be "a confusion regarding the philosophy behind the system."

He explained that "GSP was not designed to cover products which were already competitive in the U.S. market. The idea is to stimulate exports of new products currently being exported only in limited quantities by providing the duty advantage to less developed countries in competition with developed countries' exports."

Assistant Secretary Shlaudeman also commented on "those who talk about U.S. hegemony and economic imperialism in Latin America" and said that these persons "have no idea of how tough the competition in Latin American markets is for the United States and other countries like Japan and other European nations." He further stated that during the last few years, the U.S. percentage in Latin America's total foreign trade has diminished measurably.

Multilateral Trade Negotiations

This article is another in a series of progress reports on the multilateral trade negotiations, prepared by the Commerce Department Office of Int'l Trade Policy.

GENEVA

A **GATT Framework Improvement Group** was established by the Trade Negotiations Committee on Nov. 5. This new negotiating group is to examine various possibilities for improving the rules and procedures of the General Agreement on Tariffs and Trade (GATT). Originally proposed by Brazil to explore the adequacy of trading rules as they affect developing countries, the Group will address issues of interest to both developing and developed countries.

An organizational meeting of the Group is planned for mid-December. The work program which seems likely to be taken up later includes: 1) the legal framework of special and differential treatment for developing countries in relation to GATT provisions, particularly the Most-Favored-Nation clause; 2) trade measures which may be taken for balance-of-payments or economic development purposes; 3) consultation, dispute settlement and surveillance procedures under the GATT; 4) the applicability, in future trade negotiations, of the principle of reciprocity between developed and developing countries, and fuller participation by the latter in an improved framework of GATT rights and obligations; and 5) an examination of GATT rules concerning export restrictions.

Such a work program would enable the United States to propose improvements in GATT rules or procedures on such issues of interest to U.S. industry as balance-of-payments trade measures, dispute settlement, and export controls. These subjects also would allow the U.S. to encourage greater acceptance of responsibility by developing countries under the international trading system. There are no easy solutions to any of these problems and quick progress is not likely.

The **NTM Subgroup on Customs Matters** met Oct. 26-28, to continue discussion on customs valuation, import documentation, consular formalities and fees, and customs procedures. Highlights were active U.S. participation in a discussion of valuation principles, and a proposal by the United States for a notification and consultation procedure to deal with customs issues other than valuation.

On the issue of customs valuation, discussion was largely devoted to an examination of a GATT Secretariat checklist enumerating principles on which a new set of international valuation rules might be based. In discussing the future work of the subgroup, the U.S. stated that a new set of international rules on customs valuation should be among the important objectives of the MTN. The U.S. urged that the next meeting of the subgroup focus on a detailed discussion of possible international valuation rules, building on the subgroup's discussion of principles that might underlie such rules. The United States indicated its willingness to consider changes to its valuation system, but such changes would depend on the reciprocity offered by other countries. Other delegations commended the U.S. for its statement and expressed the hope that an agreed basis now existed for negotiations on customs valuation. The European Community presented a detailed list of issues that could be used as a basis for future discussion of possible valuation rules.

On the issues of import documentation, consular fees and formalities, and customs procedures, discussion focused on a U.S. proposal calling for a notification and consultation procedure to deal with these issues. Such a procedure would establish a mechanism whereby countries could take up specific customs problems with other countries. The U.S. proposal was strongly supported by the developed countries, but opposed by certain less developed countries that fear such a procedure would single out countries maintaining consular formalities and fees. Discussion of this proposal will be resumed at the next meeting.

The **NTM Subgroup on Quantitative Restrictions and Import Licensing Procedures** met Nov. 2-3 and heard U.S. suggestions for procedures to deal with existing quantitative restrictions (QRs). These suggestions include bilateral procedures to deal with specific QRs of trade interest to various countries and multilateral procedures to identify and justify QRs under GATT provisions.

The meeting opened with reports on bilateral consultations held by various delegations since the subgroup's last meeting. The U.S. stated that while the QR consultations held under existing procedures had been useful, they had proceeded more slowly than expected, and should be supplemented with additional actions to expedite the work of the subgroup. The U.S. suggested bilateral procedures calling on countries to specifically identify products of trade interest subject to QRs and to explore further possibilities for liberalization of those QRs. A multilateral process of notification and GATT justification on all QRs that could not be eliminated by the end of the MTN also was suggested. Priority attention was given to QRs affecting the exports of less developed countries.

On the issue of import licensing procedures, the U.S. suggested that interested countries meet on a technical level to consolidate various country positions concerning the draft texts on automatic licensing and on licensing for purposes of administering import restrictions. The subgroup agreed that the Secretariat should prepare a document which includes the two draft texts, together with all suggestions made in the subgroup for revision of those texts. Thereafter, the Secretariat would arrange for a technical meeting of interested countries to draw up revised draft texts that would be considered by the subgroup at its next meeting.

The **NTM Subgroup on Technical Barriers to Trade** met Nov. 8-12 to continue work on a draft standards code. The subgroup reviewed all the suggested amendments to the code presently on the table, making significant progress in clarifying and reaching agreement on a number of these proposals. A brief discussion of definitions necessary in a code moved the subgroup closer to a consensus on the number and form of such definitions.

A number of proposals were presented on special and differential treatment for developing countries within the context of a standards code. There was no final resolution on this issue, and it is expected that this will be a major topic of discussion at the next subgroup meeting.

WASHINGTON

The eighth meeting of the **Industry Policy Advisory Committee** was held at the Department of Commerce on Nov. 10. Secretary of Commerce Richardson, Ambassador Frederick B. Dent, the President's Special Representative for Trade Negotiations (STR), and Commerce Department and STR staff members gave presentations on the status of the MTN, supply access, tariffs, and negotiations with the less developed countries, as related to the achievement of U.S. industry objectives.

The blue ribbon **Advisory Committee for Trade Negotiations** held its fifth meeting at the Department of Commerce on Nov. 16. The meeting, chaired by Ambassador Dent, emphasized industrial issues. Commerce representatives gave presentations on the objectives of American industries, while STR representatives covered the topics of trade policy, MTN status, tariffs and GATT reform. Ambassador William Walker, head of the U.S. delegation in Geneva, made a presentation on Canadian, European Community and Japanese objectives in the multilateral trade negotiations.

UTILIZING INTERMISSION—*In Taipei, during breaks between video-taped demonstrations of US. tools, prospects head for product catalogs supplied by exhibitors.*

VIDEO TAPE PROVIDES SALES LINK ABROAD FOR TOOL BUILDERS

A link that extended halfway around the world—between U.S. products and foreign customers—was constructed from video tape recently by U.S. trade promotion specialists.

More than 1,000 potential buyers of machine tools in Singapore, Sydney, and Taipei watched pre-recorded screen presentations specially produced for them in the United States from audio-visual materials supplied by U.S. companies. Then they delved into product catalogs for further details, talked to a representative of the U.S. machine tool industry, and met with Commerce Department officials who telexed inquiries to the exhibitors back home.

The video catalog exhibition was designed to achieve a strong, instant impact upon machine tool buyers as an alternative to the time and expense of shipping heavy machines long distances and sending company sales personnel off on expensive journeys.

The concept, while not new, was brought this year into a workable export promotion tool through the combined efforts of Commerce's Office of International Marketing (OIM) and the Motion Picture and Television Service of the U.S. Information Agency, with assistance from the National Machine Tool Builders' Association. Twenty-three companies demonstrated one or more of their products by means of a 10- to 12-minute sound-and-color video tape recording, accompanied by a product catalog for each item (no full-line catalogs), at the U.S. Trade Center in each of the three cities. In addition, an industry technical representative, Jesse Maffuid of the NMTBA, supplied during the three-day event in each marketing area the personal expertise and cohesiveness essential for a successful show. The total cost to each firm for this pilot event was $450.

The Lockformer Co. of Lisle, Ill., was one of the firms that drew the most attention with its presentation on roll-forming equipment. Hardinge Bros. of Elmira, N.Y., featured a full line of collets and feed finger pads that attracted a wide audience, as did the W. A. Whitney Corp., of Rockford, Ill., with a combination punching and plasma cutting machine, in its 10-minute sound-and-color presentation.

Leads telexed to U.S.

More than 2,600 requests for additional product information and price data were telexed directly back to the exhibitors within five days of the close of each show and every firm seeking agents and/or dealers received a list of at least 15 appropriate prospects from each Trade Center location. Said Paul Decker, marketing manager for the Arvey Corp. in Chicago, "We weren't into export very much before this show but now, instead of going directly to Europe to look into things, I'm going there via Taipei and Singapore to set up dealers and reps . . . We really got our money's worth."

"The video/catalog exhibition is an effective method of getting the small- and medium-size U.S. firm into viable export markets and extra profits at very reasonable cost," observes OIM Director Richard Garnitz. "The implications for U.S. industry and Commerce programs are enormous." The Department is researching the use of this technique for other U.S. industries and overseas markets. Additional such events focusing on machine tools are being planned for a dozen countries within the next six months. They will be announced in *Commerce America* as they are scheduled.

Taiwan's New Mechanization Seen Increasing Demand For Process Control Instruments

The Republic of China is in the midst of change from a labor-intensive to an industrialized economy, a circumstance amply demonstrated in the high interest shown in process control instrumentation at a recent exhibition at the U.S. Trade Center in Taipei.

The majority of industries in Taiwan are export-oriented, and managers and plant supervisors acknowledge now that to be fully competitive in the world marketplace they must upgrade the quality of their products.

The Taipei show featured the most

U.S. SHOW IN TAIPEI—*During Trade Center's process control instrumentation exhibition, Chou I-ching (left), representative for Crawford Fitting Co., Cleveland, Ohio, describes the firm's pipe fittings to potential buyers.*

sophisticated equipment available from the 24 American firms participating in the event. Exhibitors reported immediate sales of $112,500 and 12-month projected sales of $4.2 million. One new-to-market participant, C & K Components, appointed a representative; another, Rosemount Inc., originally not seeking an agent, also signed an agreement at the exhibition.

Prices of U.S.-manufactured process control instrumentation are generally higher than those of local and third country suppliers. But U.S. instruments are recognized as far superior in technology to those those of all competitors, the U.S. Embassy reports. Prices of locally made, technologically simple instrumentation are expected to decline in the next few years as production increases; thus, U.S. suppliers of these devices will face increasing competition. However, American-made equipment such as flow tubes, chlorinator receiver/transmitters, and spohisticated electronic control systems, which cannot be produced on Taiwan, will not face local competition. Between U.S. and third-country suppliers, though, competition will be very keen, as the market for the more technologically advanced products expands.

Computer-compatible and computerized systems are now being installed in the public sector. Demand for these systems in the private sector should grow rapidly in the next three to five years. Japanese and West German suppliers are expected to remain U.S. manufacturers' major competitors.

Taiwan's petroleum, chemical processing and utility services industries, which are the major end-users of process control instrumentation, have been expanding rapidly and are expected to continue to do so. The Pollution Control Act, promulgated in 1974, will also stimulate demand for such products, as the act is enforced over the next few years.

Albert F. Manolos, representing Phoenix Pacific, Inc., Davenport, Iowa, commented: "This show was planned in a most timely period in the Republic of China's industrialization. As a result, I feel both host country and all exhibitors benefited from an excellent show."

JOINING SELLER WITH BUYER—*Ms. Denise H. Robbins, president, and Joel D. Mallett, vice president, Assembly Systems, Inc., display their firm's welding equipment for prospective customers at U.S. Trade Center electronic components show.*

U.S. Electronic Components Show Underscores Japanese Demand, Despite Prices

Prices of U.S. electronic components and materials may be not fully competitive in the Japanese market, but their acknowledged technological superiority gives them an edge not to be overlooked.

Exhibitors of such products at the Tokyo U.S. Trade Center earlier this year are ebullient about prospects for future sales in Japan. The 32 participants estimate that their orders in the next 12 months will reach more than $19 million. Some believe that sales will actually total more than the amounts projected, and that they will be even higher the following year—because of the "lengthy sales gestation period" associated with this industry to allow for re-engineering of products using new components and materials.

Why were trade visitors so interested in the items displayed? Prospective customers indicated that they were looking for quality performance, good value, efficiency, labor savings, and reliability, in that order. Electromagnetic shield coatings, power silicon transistors, laminates for printed circuits, high-speed rotary printers for circuits, static tandem access memories, electric alterable read-only memories, rectangular rack and panel connectors, home-appliance switches with UL specification approval, and code stoppers with UL approval were among the products considered to have the best potential.

Higher in price

For industrial electronics in the Japanese market, prices of U.S.-made components classified as best sellers are generally higher, because of import tariff rates (average, 6 percent), freight cost, and commissions for importers and distributors; however, the price disadvantage is well offset by U.S. technological superiority and excellent product quality. For consumer electronics, prices of U.S.-made components are slightly higher for the same reasons. Desk top caculators using U.S.-made large-scale integrated circuits are at present price competitive; however, this situation is expected to change because of Japanese modernization of integrated circuit production.

Technological lead

The exhibitors stated that the United States has a five- to ten-year technological lead, especially in industrial-use components and materials; for example, U.S. applications for microprocessors are far more advanced than Japanese uses. A four-year joint research project between the Government of Japan and five computer makers started this year to develop very large scale integrated circuits to be used in fourth-generation computers. Such technology is expected to make a valuable contribution to miniaturization in the electronics industry.

According to Japan's Ministry of International Trade and Industry, production of general purpose digital computer systems is expected to have an annual growth rate of 14 percent by 1985, and import of such systems, 9.8 percent.

SWEDEN GROPES UPWARD FROM MODERATE SLUMP

Sweden's economy probably hit the bottom of its production cycle in the spring of this year, reports the U.S. Embassy in Stockholm, but the upturn has been sluggish.

Elections in Sweden in September installed a coalition of three parties which had formed the opposition to the Social Democrats and their parliamentary allies, the Swedish Communist Party, since 1932. New leadership was sworn in in early October, headed by Prime Minister Thorbjorn Falldin, leader of the Center Party, Vice Prime Minister and Minister of Labor Per Ahlmark of the Liberal Party, and Gosta Bohman, Minister of Economy and leader of the Moderate Party. This triumvirate presented a program which built on the Social Democrats' policies of recent years and departed from them in promising to slow down and possibly cease nuclear power development, to reestablish the economic and social viability of small business, and to attempt to decentralize economic policy direction which the Social Democrats had built up in Stockholm.

The new program contains challenges and inconsistencies which the coalition may have to amend and realign as its newly acquired responsibilities are tested in contests with Social Democrats in the Riksdag.

The elections, the big news of 1976, came as Sweden was groping upward from economic recession. Throughout 1974 and 1975 Sweden had managed much better than most industrial nations to maintain employment and production levels. The unemployment rate, for example, remained at about 1.5 percent as defined by Swedish authorities.

Early in 1976, an upturn occurred in the measures of production volume in machinery and transportation, wood, pulp, and iron and steel, the most important segments of Swedish industry. Roughly speaking, however, this returned Sweden to production levels of 1973, and was still below levels of late 1974.

As a nation dependent to an unusual degree on exports (Sweden exports nearly one-fourth of its gross national product, chiefly to Western Europe, the Nordic countries, and the United States), Sweden's competitive position in international trade has been much debated in recent months. Social Democratic wage settlements and social welfare programs have raised production costs rapidly. Labor costs have doubled since 1972 and rose over 40 percent in the past two years. Sweden has at present the highest labor cost per unit of output of any industrial country in the world.

Combined with other elements in the cost structure, this upward shift in labor costs has contributed to a higher rate of inflation in 1976—11 percent at midsummer, though dropping somewhat by early fall. Again, Sweden's inflation rate exceeds that of some of its foremost competitors, such as West Germany, the United States and Japan. In an effort to control inflation, the Swedish Government placed price ceilings on many consumer items—some food, personal use articles, and automobiles, for example—and subsidized foodstuffs.

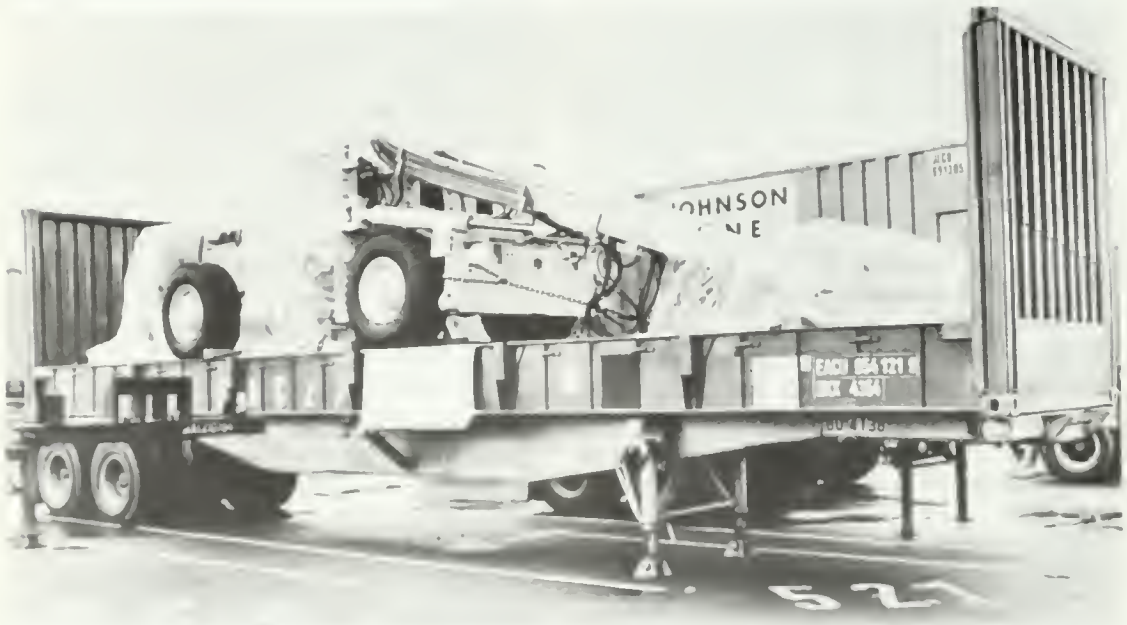
The last Swedish Government forecast in early 1976 that total demand would increase more rapidly abroad than in Sweden, thus stimulating exports to rise relatively more rapidly than imports and yielding a balance of trade surplus of almost $700 million. Exports have lagged behind expectations, however, and imports have been well above expectations. Continuing sizable deficits on transfers and services raised the prospect of a current account in deficit by between $1.5 and $2 billion.

Present and potential U.S. investors in Sweden must contend with the cost-influencing factors mentioned above. Sweden as an export base has become less attractive than many other countries, including the United States. In selected areas, however, production for the Swedish market, or exports to the Swedish market, can be attractive.

The U.S. Trade Center for Scandinavia, located in Stockholm, mounts a number of major exhibitions every year, and through private showings and other means generally assists American firms in promoting their products. One major result is assisting U.S. exporters in finding suitable agents throughout the Nordic countries.

Several industries are targeted for promotion concentration each year. Among the target industries with special promise in Sweden in 1976-77 are:

- U.S. **computers and peripherals**, a category with $49 million in exports to Sweden in 1975, not including terminals. This figure has increased about 35 percent each of the last two years and reflects a steadily increasing market share. A data processing exhibition is planned by the U.S. Trade Center in the fall of 1977.
- The area of **building supplies, construction and materials handling equipment** is another category in which U.S. exports do especially well. The total for 1975 was $43 million, compared to $35 million in 1974 and $21 million in 1973. The U.S. Trade Center plans an exhibition on this theme in early 1978.
- Another industry with strong current growth and continued good potential is **metalworking equipment**. Sweden itself is a manufacturer and exporter of this equipment, while importing sizable quantities. The level of U.S. exports to Sweden in 1975 was somewhat over $20 million.
- The level of **business equipment** imports from the United States was about $20 million, including a large portion in computer terminals.
- **Aviation/avionics equipment** exports continue strong at $36 million, with about one-third of that total in jet turbine parts.
- Other product categories with more than $12 million in U.S. exports to Sweden last year are **electronic components, gasoline engines, graphic industries equipment, health care equipment, laboratory instruments, and communications equipment.**



SHIPPED TO SWEDEN—*The 44,000-pound "Rampmaster," a hard-rock drilling machine used in underground mining operations, is secured aboard a Johnson ScanStar 40-foot flat rack at the port of Seattle, just prior to loading aboard JSS' Meonia for transport to Gothenburg. The big rig will be used in Swedish mining operations.*

Iceland At Full Employment, But The Cost Has Been High

Iceland continues to strive for growth, price stability and full employment, with the emphasis for domestic political reasons on full employment. This goal has meant giving priority to maintaining full employment at almost any cost, according to the U.S. Embassy in Reykjavik.

When the present government took control two years ago it was faced with an economic crisis of severe proportions. Since then it has weathered a sharp drop in gross national product and in real wages, as well as a 50 percent inflation rate. Despite these difficulties the government has kept unemployment at almost ½ of 1 percent.

The cost has been high. To maintain employment at a maximum level in the face of declining production and rising costs has meant increased borrowing (especially abroad) by the Treasury and Central Bank. Iceland's foreign debt has risen significantly in the past two years. For instance, its debt burden in 1974 (ratio of amortization plus interest to export earnings) was 11.5 percent of exports. Many Icelanders were surprised to discover that this figure had risen to 18 percent for 1976. The Central Bank last May noted that the figure would increase for the next few years.

As the debt has grown in the past few years, the Iceland Government has tried a variety of measures, including import controls, exchange devaluation, deflationary policy and budget stringency.

For the third year in a row growth is expected to decline (about half of the −3.4 percent of last year). This has been a disappointment, as it had been thought that economic recovery abroad would produce some small increase in Iceland's GNP in 1976.

A second disappointment came recently when the National Economic Institute announced that the inflation rate as measured by the cost of living index would likely exceed 30 percent this year. Even after the 25-30 percent wage increase (phased throughout the following 15 months) approved in March, it had been estimated that inflation could be held to less than 25 percent. Year-end inflation figures for 1974 and 1975 were almost 53 and 40 percent, respectively. The most that can be said is that the trend seems to be in the right direction.

There is one bright area—increasing fish prices—but this is dimmed by the prospect of declining fish resources. Amid acrid debate (internally and externally) as to Iceland's true level of fish resources, arises the question of division of such resources. Even were all of these resources retained by Iceland, it is generally conceded that there is not enough fish to go around. Solutions range from dividing the catch among all Icelandic fishing boats to limiting it to some of the boats. The latter solution, although possibly more efficient, raises the problem of unemployment.

It seems likely that high fish prices will hold for the remainder of 1976 and well into 1977. Since fish products account for 75 percent of Iceland's merchandise export earnings, this is good news indeed. Equally good news for Iceland has been the trend to reduced imports. If new wage demands can be held off until mid-1977 as scheduled, Iceland may witness a further decline in inflation and some growth in production.

Wages are not, of course, the whole problem. Domestic credit must be curbed. However, there is doubt that this can be done in the private sector, which has been financially strapped in recent years. Therefore, steps would have to be taken by the government to curb public expenditures, largely in public projects and investment funds. New Treasury borrowing from the Central Bank is expected to be less than last year, but further budgetary restraint will depend heavily on how the government views the employment picture, which some observers paint darker than others.

Although the real value of Icelandic imports have been declining, the U.S. share has continued to increase from 7.4 percent in 1973 to 9.4 percent in 1975. In dollar terms the figures for 1973 and 1975 are $26.3 million and $45.7 million, respectively.

Favored items have been transportation equipment, followed closely by non-electric machinery. Although total automobile sales declined in 1975, they were replaced by equivalent sales in other types of equipment, e.g., farm, mass transport, road building.

Agricultural sales (grain, tobacco) continue to play an important part in U.S. exports to Iceland, up 25 percent in dollar value in one year.

Other attractive possibilities include the sale of steel pipe of various diameters as part of the growing hot water system. At present government authorities are expanding the system to include the major population area in northern Iceland (Akureyri) and the southwestern peninsula (including Keflavik) and the NATO Base. U.S. supplies might successfully compete for such sales.

Union Carbide has withdrawn from the earlier announced joint venture with the Iceland Government to build a $160 million ferrosilicon plant. The government is presently negotiating with Elkem of Norway. If the project gets under way, possibilities exist for U.S. equipment sales.

Iceland continues to favor foreign investment on a selective basis with a government majority interest. Iceland offers major opportunities for industry which requires large amounts of relatively cheap electricity, e.g., aluminum, and which has limited manpower requirements.

Spain Sets Import Surcharge

Spain has recently instituted a 20 percent surcharge on almost all imports. Excepted are certain capital equipment not manufactured in Spain, goods to be used in the manufacture of certain capital equipment covered by joint Spanish/foreign ventures, and agricultural commodities already subject to variable import levies.

The surcharge is to be added to the regular duty; e.g., if the duty is 20 percent, the new duty including surcharge is 24 percent. The surcharge is scheduled to be eliminated next April 11.

Calendar For World Traders

Dec. 7—New York—Briefing on Norway—Oil and Development. Sponsor: International Study and Research Institute, Inc. Meetings are held at 55 West 44th St., 8th Floor. For information: 212-877-8628.

Dec. 9—Pittsburgh—Seminar on Canada—Profits Within Your Reach, Holiday Inn Airport. For information: Newton Heston, Jr., Pittsburgh District Office, 412-644-2850.

Dec. 10 — Lookout Mountain, Tenn. — World Trade Council of Chattanooga meeting, Fairyland Club.

Dec. 14—Louisville—Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro East.

Dec. 15—Philadelphia—Selling in Venezuela seminar, Sheraton. Sponsor: District Export Council.

Dec. 16—St. Louis—World Trade Club meeting. Speaker: Robert Shaw, Acting Deputy Assistant Secretary for International Commerce.

Dec. 21 — Memphis — World Trade Club meeting, Southwestern University.

Dec. 21 — New York — FCIB Hardware-Automotive & Allied Trades Group Christmas meeting and election of officers.

World Commercial Holidays In 1977 Listed For U.S. Business Travelers

Business travelers may find office doors locked and their intended contacts unavailable unless they take commercial holidays into consideration when planning itineraries. A visitor to Geneva on Sept. 8, for example, would find the local citizens observing their Thanksgiving Day; businesses in Hong Kong will be closed during the Dragon Boat Festival on June 21; March 7 is Labor Day in some parts of Australia, while other areas of the country observe the same holiday on March 14, May 2, Oct. 3 or Oct. 10.

These are some of hundreds of commercial holidays abroad that U.S. business executives are advised to consider in planning overseas travel. In fact, there are only a few days in 1977 when there will be no commercial holidays somewhere in the world that will probably close both business and government offices in the celebrating countries.

On this and following pages, commercial holidays are listed for more than 100 countries, presented alphabetically, around the world.

The list was compiled from data assembled by Commercial Officers at U.S. Foreign Service Posts abroad.

Many commercial holidays occur on different calendar dates from year to year. Holidays and even weekends often vary from country to country, and from region to region. Some holidays do not recur from one year to the next, while other holidays may vary in duration as well as calendar date.

In cases where holidays fall on Saturday or Sunday, a common occurrence in 1977, commercial establishments may be closed on the preceding Friday or following Monday.

For many countries, such as those in the Moslem world, holiday dates can be only approximate (marked est.) because they are based on the lunar calendar. Note that references to the Moslem holidays often vary in spelling and dates, and that businesses in many Moslem countries are closed on Fridays.

Although U.S. holidays are not included in this schedule, they should also be considered when appointments are made with U.S. Commercial Officers abroad.

The calendar is intended as a working guide only. Corroboration of dates is suggested in final business travel planning

AFGHANISTAN—Jan. 1 (Tenth of Moharram), March 3 (Milad-e-Nabi), March 21 (Nawroz), May 28 (Independence Day), July 17-19 (Republic Day), Aug. 16 (First of Ramazan), Aug. 31 (Pashtunistan Day), Sept. 10 (National Assembly Day), Sept. 15-17 (Id-e-Fitr), Oct. 15 (Deliverance Day), Oct. 24 (United Nations Day), Nov. 21-24 (Id-e-Azha), Dec. 22 (Tenth of Moharram).

The Afghan Government and many business firms observe a workweek of Saturday through Wednesday and Thursday morning.

ALGERIA—Jan. 1 (New Year's and Aashura), March 4 est. (Al-Mawlid an Nabawi), May 1 (May Day), June 19 (Revolutionary Recovery Day), July 5 (Independence Day), Sept. 16-17 est. (Aid al-Fitr), Nov. 1 (Revolution Day), Nov. 21-22 est. (Aid al-Adha), Dec. 11 est (Awwal Muharram).

ARGENTINA—Jan. 1 (New Year's), April 7 (Maundy Thursday), April 8 (Good Friday), May 1 (Labor Day), May 25 (Revolution Day), June 20 (Flag Day), July 9 (Independence Day), Aug. 17 (Death of Gen. San Martin), Dec. 8 (Immaculate Conception), Dec. 25 (Christmas).

AUSTRALIA—Jan. 3 (New Year's), Jan. 31 (Australia Day), April 8 (Good Friday), April 11 (Easter Monday), April 25 (ANZAC Day), Dec. 26 (Christmas holiday), Dec. 27 (Boxing Day).

Regional Holidays: March 7 (Labor Day), Western Australia and Tasmania; March 14 (Labor Day), Victoria, and (Canberra Day), Australian Capital Territory only; May 2 (Labor Day), Queensland; May 16 (Cup Day), South Australia; June 6 (Foundation Day), Western Australia; June 13 (Queen's Birthday), New South Wales, Queensland, South Australia, Victoria, Tasmania, and Australian Capital Territory; Aug. 1 (Bank Holiday), New South Wales and Australian Capital Territory; Aug. 10 (Exhibition Day), Queensland; Sept. 28 (Show Day), Perth; Sept. 29 (Show Day), Melbourne; Oct. 3 (Labor Day), New South Wales and Australian Capital Territory; Oct. 10 (Labor Day), South Australia, and (Queen's Birthday), Western Australia; Nov. 1 (Melbourne Cup Day), Victoria.

AUSTRIA—Jan. 1 (New Year's), Jan. 6 (Epiphany), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), June 9 (Corpus Christi), Aug. 15 (Assumption), Oct. 26 (National Holiday), Nov. 1 (All Saints), Dec. 8 (Immaculate Conception), Dec. 24 (Bank Holiday), Dec. 25 (Christmas), Dec. 26 (St. Stephen's), Dec. 31 (Bank Holiday).

Regional holidays: March 19 (St. Joseph), Carinthia, Styria, Tyrol, Vorarlberg; Sept. 24 (St. Rupert), Salzburg; Oct. 10 (Plebiseite Anniversary), Carinthia; Nov. 11 (St. Martin), Burgenland; Nov. 15 (St. Leopold), Lower and Upper Austria, Vienna.

Regional holidays are mainly observed by schools and farmers.

Also, many businesses will be closed on the following days which are part of long weekends: Jan. 7, May 20, June 10, Oct. 31, Dec. 9.

BAHAMAS—Jan. 1 (New Year's), April 8-11 (Easter), June 4 (Labor Day), May 30 (Whit Monday), July 10 (Independence Day), Aug. 2 (Emancipation Day), Oct. 12 (Discovery Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

BAHRAIN—Jan. 1 (New Year's), March 2 est. (Prophet's Birthday), Sept. 12-14 est. (Id-al-Fitr), Nov. 20-22 est. (Id-al-Adha), Dec. 16 (National Day).

BARBADOS—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Bank holiday), May 2 (May Day), May 30 (Whit Monday), July 4 (Caribbean Day), Oct. 3 (United Nations Day), Nov. 30 (Independence Day), Dec. 26 (Christmas), Dec. 27 (Boxing Day).

BELGIUM—Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), July 21 (Independence Day), Aug. 15 (Assumption), Nov. 1 (All Saints), Nov. 11 (Veterans Day), Dec. 25 (Christmas).

In Belgium, the Monday following a weekend holiday is a normal working day.

BENIN—Jan. 1 (New Year's), March 1 (Id El Mulud), April 10 (Easter), May 1 (Labor Day), May 29 (Pentecost), Oct. 26 (Armed Forces Day), Nov. 20-21 (El Kebir), Nov. 30 (National Day), Dec. 25 (Christmas), Dec. 31 (Production Day).

BERMUDA—Jan. 1 (New Year's—Public Holiday Jan. 3), April 8 (Good Friday), May 24 (Commonwealth Day), June 11 (Queen's Birthday—Public Holiday June 13), July 28 (Cup Match Day), July 29 (Somer's Day), Nov. 11 (Remembrance Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day—Public Holiday Dec. 27).

BOLIVIA—Jan. 1 (New Year's), April 8 (Good Friday), May 1 (Labor Day), June 9 (Corpus Christi), Aug. 6 (Independence Day), Dec. 25 Christmas).

State holidays: Feb. 10 (State of Oruro Day), April 15 (State of Tarija Day), May 25 (State of Chuquisaca Day), July 16 (State of La Paz Day), Sept. 14 (State of Cochabamba Day), Sept. 24 (State of Santa Cruz Day), Sept. 24 (State of Pando Day), Nov. 10 (State of Potosi Day), Nov. 18 (State of Beni Day).

BOTSWANA—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Monday), May 19 (Ascension), May 30 (Whit Monday), May 31 (President's Day), June 6 (Commonwealth Day), Aug. 1 (First Monday in August), Sept. 30 (Botswana Day), Oct. 24 (United Nations Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

BRAZIL—Jan. 1 (New Year's), Feb. 19-21 (Carnival), April 8 (Good Friday), April 21 (Tiradentes), May 1 (Labor Day), Sept. 7 (Independence Day), Nov. 2 (All Souls), Nov. 15 (Procla-

mation of the Republic), Dec. 25 (Christmas).

Regional holidays: Jan. 20 (San Sebastian Day), Rio de Janeiro; Jan. 25 (Sao Paulo Anniversary), Sao Paulo; June 9 (Corpus Christi), Brasilia; Oct. 12 (N.S. Aparecida—Patron Saint Day), Brasilia; Dec. 8 (Immaculate Conception), Brasilia.

BULGARIA—Jan. 1 (New Year's), May 1-2 (May Day), May 24 (National Education Day), Sept. 9-10 (National Day), Nov. 7 (October Revolution Day).

The day preceding each of the above holidays is usually a half workday.

BURMA—Jan. 4 (Independence Day), Feb. 12 (Union Day), March 2 (Peasants' Day), March 3 (Full Moon of Tabaung), March 27 (Resistance Day), April 13-16 (Water Festival), April 17 (Burmese New Year), May 1 (Full Moon of Kason and Workers' Day), July 19 (Martyrs' Day), July 30 (Full Moon of Waso), Oct. 27 (Full Moon of Thadingyut), Nov. 25 (Full Moon of Tazaungmon), Dec. 5 (National Day), Dec. 25 (Christmas).

BURUNDI—Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), July 1 (Independence Day), Aug. 15 (Assumption), Sept. 18 (Victory of Uprona), Oct. 13 (Assassination of National Hero), Nov. 1 (All Saints), Nov. 28 (Republic Day), Dec. 25 (Christmas).

CAMEROON—Jan. 1 (New Year's), Feb. 11 (Youth Day), April 8 (Good Friday), May 1 (Labor Day), May 19 (Ascension), May 20 (National Day), Aug. 15 (Assumption), Sept. 13 est. (End of Ramadan), Nov. 22 est. (Feast of the Lamb), Dec. 25 (Christmas).

CANADA—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Monday), May 23 (Victoria Day), July 1 (Dominion Day), Sept. 5 (Labor Day), Oct. 10 (Thanksgiving), Nov. 11 (Remembrance Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

Regional holiday: Aug. 1 (Civic Holiday), observed in Ontario, Alberta, British Columbia and Manitoba.

In Canada, national holidays are established by federal statute, which provides that when a holiday falls on a Saturday or Sunday, it is observed on the following Monday. Therefore, in 1977, New Year's, Christmas and Boxing Day will be observed on Monday, Jan. 3, Monday, Dec. 26 and Tuesday, Dec. 27, respectively.

Boxing Day is observed by all of the provinces, but in Quebec commercial businesses usually are open after 1 p.m.

CENTRAL AFRICAN REPUBLIC—Jan. 1 (New Year's), March 29 (Anniversary of President Boganda's Death), May 1 (Labor and Culture Day), May (Mother's Day—exact date not yet established), Dec. 1 (National Day), Dec. 25 (Christmas).

Some local businesses also observe the religious holidays of Easter Monday, Ascension, Pentecost, Assumption and All Saints' Day.

CHAD—Jan. 1 (New Year's), about mid-March (Birth of the Prophet), April 11 (Easter Monday), April 13 (National Day), May 1 (Labor Day), May 19 (Ascension), May 25 (African Continent Liberation Day), Aug. 11 (Independence Day), Aug. 15 (Assumption), sometime in September (End of Ramadan), Nov. 1 (All Saints), sometime in November (Aid-el-Sakhairr), Nov. 28 (Proclamation of the Republic), Dec. 25 (Christmas).

CHILE—Jan. 1 (New Year's), April 8-9 (Good Friday and Easter Saturday), May 21 (Battle of Iquique), Aug. 15 (Assumption), Sept. 19 (Armed Forces Day), Oct. 12 (Columbus Day), Nov. 1 (All Saints), Dec. 8 (Immaculate Conception).

CHINA, PEOPLE'S REPUBLIC—Jan. 1 (New Year's), Feb. 18-20 (Spring Festival—Lunar New Year's), May 1 (May Day), Oct. 1-2 (National Day).

COLOMBIA—Jan. 1 (New Year's), Jan. 6 (Epiphany), March 19 (St. Joseph), April 7 (Maundy Thursday), April 8 (Good Friday), May 1 (Labor Day), May 19 (Ascension), June 9 (Corpus Christi), June 29 (Sts. Peter and Paul), July 20 (Independence Day), Aug. 7 (Battle of Boyaca), Aug. 15 (Assumption), Oct. 12 (Columbus Day), Nov. 1 (All Saints), Nov. 11 (Independence of Cartagena), Dec. 8 (Immaculate Conception), Dec. 25 (Christmas).

COSTA RICA—Jan. 1 (New Year's), March 19 (St. Joseph's Day), April 8-11 (Easter), May 1 (Labor Day), June 29 (Sts. Peter and Paul), July 25 (Annexation of Guanacaste), Aug. 2 (Feast of Our Lady of the Angels), Aug. 15 (Assumption), Sept. 15 (Independence), Oct. 12 (Columbus Day), Dec. 8 (Immaculate Conception), Dec. 25 (Christmas).

CYPRUS—Jan. 1 (New Year's), Jan. 6 (Epiphany Day—G), Jan. 19 (Arch. Makarios Name Day—G), Feb. 21 (Green Monday—G), March 2 (Birthday of the Prophet—T), March 25 (Greek Independence Day—G), April 8 (Good Friday—G), April 9 (Holy Saturday—G), April 10 (Greek Easter—G), April 11 (Easter Monday—G), April 23 (Opening of the Turkish Grand National Assembly—T), May 19 (Turkish Youth Day—T), Aug. 15 (Assumption—G), Aug. 30 (Turkish Victory Day—T), Sept. 15 (Ramazan Bairam—T), Oct. 28 (OHI Day—G), Oct. 29 (Turkish Republic Day—T), Nov. 22 (Kurban Bairam—T), Dec. 24 (Christmas Eve—G), Dec. 25 (Christmas—G), Dec. 26 (Boxing Day—G).

In list above for Cyprus, the letter "G" designates Greek holiday and "T" Turkish holiday; New Year's is the only holiday celebrated by both. Most are observed by the government.

CZECHOSLOVAKIA — Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Labor Day), May 9 (State Holiday), Dec. 25 (Christmas), Dec. 26 (St. Stephen's).

For holidays falling on weekends, no additional day is taken.

Dec. 24 is not an official holiday, but many offices will be closed.

Regional holiday: Aug. 29, Slovakia.

DENMARK—Jan. 1 (New Year's), April 7 (Maundy Thursday), April 8 (Good Friday), April 11 (Easter Monday), May 6 (Prayer Day), May 19 (Ascension), May 30 (Whit Monday), June 5 (Constitution Day), Dec. 25 (Christmas), Dec. 26 (Second Christmas Day).

May 1 (Labor Day), Dec. 24 and Dec. 31 are traditional half-day holidays. However, as on June 5 (official half-day holiday), most businesses and banks are closed on those days.

DOMINICAN REPUBLIC—Jan. 1 (New Year's), Jan. 21 (Dia de Ntra. Sra. de la Altagracia), Jan. 26 (Dia de Duarte), Feb. 27 (Independence Day), April 8 (Good Friday), May 1 (Labor Day), June 9 (Corpus Christi), Aug. 16 (Restoration Day), Sept. 24 (Dia de Ntra. Sra. de las Mercedes), Dec. 25 (Christmas).

ECUADOR—Jan. 1 (New Year's), April 8 (Good Friday), May 1 (Labor Day), May 24 (Battle of Pichincha), Aug. 10 (National Independence Day), Oct. 9 (Guayaquil Independence Day), Oct. 12 (Columbus Day), Nov. 2 (All Souls), Nov. 3 (Cuenca Independence Day), Dec. 6 (Foundation of Quito), Dec. 25 (Christmas).

EGYPT—March 2 est. (Moulid el Nabi), March 8 (Syrian Revolution Day), April 11 (Shem el Nessim), June 18 (Evacuation Day), July 23 (National Day), Sept. 1 (Libyan Republic Day), Sept. 14-17 est. (Ram Dan Bairam), Oct. 6 (Armed Forces Day), Oct. 24 (Popular Resistance Day), Nov. 20-24 est. (Kurban Bairam), Dec. 12 (Islamic New Year's).

May 1 (Labor Day) is not an official holiday, but some offices will be closed.

Feb. 22 (Unity Day) and Dec. 23 (Victory Day) are generally observed only by schools and universities.

EL SALVADOR—Jan. 1 (New Year's), April 8-11 (Holy Week), May 1 (Labor Day), Sept. 15 (Independence Day), Nov. 5 (First Cry of Independence), Dec. 24-Jan. 2 (Christmas Holidays).

ETHIOPIA—Jan. 7 (Ethiopian Christmas), Jan. 19 (Ethiopian Epiphany), March 2 (Victory of Adwa Commemoration Day), March 13 (Prophet's Birthday), April 6 (Patriots' Victory Day), April 8 (Ethiopian Good Friday), April 10 (Ethiopian Easter), May 1 (Labor Day), Sept. 11 (Ethiopian New Year's), Sept. 12 (Revolution Day), Sept. 27 (Meskel—Finding of the True Cross), Oct. 5 or 6 (Id al Fetir), Dec. 13 or 14 (Id al Adha).

Holidays falling on a Sunday will not be celebrated either before or after the Sunday.

FINLAND—Jan. 1 (New Year's), Jan. 8 (Epiphany), April 8 (Good Friday), April 11 (Easter Monday), May 14 (Ascension), May 28 (Whitsun Eve), June 24 (Midsummer's Eve), June 25 (Midsummer's Day), Nov. 1 (All Saints), Dec. 6 (Independence Day), Dec. 24 (Christmas Eve), Dec. 25 (Christmas), Dec. 26 (Second Christmas Day).

FRANCE—Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), July 14 (Bastille Day), Aug. 15 (Assumption), Nov. 1 (All Saints), Nov. 11 (Veterans Day), Dec. 25 (Christmas).

August is regarded in France as a poor month for conducting business, as most firms are closed for vacation.

GABON—Jan. 1 (New Year's), March 12 (Renovation Day), April 11 (Easter Monday), May 1 (Labor Day), May 30 (Pentecost Monday), Aug. 16-18 (Independence), Nov. 1 (All Saints), Dec. 25 (Christmas).

The end of Ramadan is a business

holiday, but the exact date will not be known until a few weeks in advance.

GAMBIA—Jan. 1 (New Year's), Feb. 18 (National Day), sometime in April (Maulud-el-Nabi), April 8 (Good Friday), April 11 (Easter Monday), May 1 (Labor Day), Aug. 15 (Assumption), sometime in October (Id-el-Fitr), sometime in December (Id-el-Kabir), Dec. 25 (Christmas).

GERMAN DEMOCRATIC REPUBLIC—Jan. 1-2 (New Year's), April 8 (Good Friday), May 1 (May Day), May 30 (Whit Monday), Oct. 7-8 (Republic Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

GERMANY, FEDERAL REPUBLIC OF, AND WEST BERLIN—Jan. 1 (New Year's), April 8-11 (Easter), May 1 (Labor Day), May 15 (Ascension), May 30 (Whit Monday), June 9 (Corpus Christi), June 17 (Day of German Unity), Nov. 16 (Repentance Day), Dec. 24 (Christmas Eve afternoon), Dec. 25-26 (Christmas).

Regional holidays: Jan. 6 (Epiphany), Baden-Wuerttemberg and Bavaria; Feb. 21 (Rose Monday), Bonn, Cologne, Duesseldorf, Mainz, and other Catholic areas celebrating Carnival; Aug. 15 (Assumption), Saarland, Catholic areas of Bavaria; Nov. 1 (All Saints), North Rhine-Westphalia, Baden-Wuerttemberg, Rhineland-Palatinate, Saarland, Catholic areas of Bavaria.

GREECE—Jan. 1 (New Year's), Jan. 6 (Epiphany), Feb. 21 (Kathara Deftera), March 25 (Independence Day), April 8-11 (Easter), May 1 (May Day), May 30 (Whit Monday), Aug. 15 (Assumption), Sept. 14 (half-day for shops—Holy Cross Day), Oct. 27 (half-day for government services—Oxi Day Eve), Oct. 28 (Oxi Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day), Dec. 31 (half-day except for shops—New Year's Eve).

Regional holidays: March 7 (Accession Day), Dodecanese Islands; Oct. 4, (Liberation of Xanthi), Xanthi; Oct. 26 (St. Demetrius Day), Thessaloniki; Nov. 30 (St. Andreas' Day), Patras.

GRENADA—Jan. 1 (New Year's), Jan. 2 (Public Holiday), Feb. 7 (Independence Day), April 8 (Good Friday), April 9 (Water Parade), April 11 (Easter Bank Holiday), April 12 (Public Holiday), May 2 (Labor Day), May 30 (Whit Monday), June 9 (Corpus Christi), Aug. 1-2 (Emancipation Day), Nov. 13 (Remembrance Day), Nov. 24 (Thanksgiving), Dec. 26 (Christmas), Dec. 27 (Boxing Day).

GUATEMALA—Jan. 1 (New Year's), April 7 (Holy Thursday), April 8 (Good Friday), April 9 (Holy Saturday), May 1 (Labor Day), May 10 (Mother's Day), June 30 (Army Day), Aug. 15 (Assumption), Sept. 15 (Independence Day), Oct. 20 (Revolution Day), Nov. 1 (All Saints), Dec. 24—from noon (Christmas Eve), Dec. 25 (Christmas), Dec. 31—from noon (New Year's Eve).

Additional banking system holidays: April 6—From noon (Holy Wednesday), May 2 (Monday after Labor Day), July 1 (Bank Worker's Day), Oct. 12 (Columbus Day), Dec. 26 (Monday after Christmas).

GUINEA—Jan. 1 (New Year's), May 1 (Labor Day), May 14 (Anniversary of Guinean Democratic Party), Aug. 20 est. (End of Ramadan Fast), Sept. 28 (Referendum Day), Nov. 22 (Anniversary of Invasion), Dec. 1 est. (Tabaski, Feast of Sacrifice), Dec. 25 (Christmas).

GUYANA—Jan. 1 (New Year's), Feb. 23 (Republic Day), March 4 est. (Yaou-Mun-Nabi), March 6 (Phagwah), April 8 (Good Friday), April 11 (Easter Monday), May 1 (Labor Day), July 4 (Caricom), Aug. 1 (Commonwealth Day), Nov. 10 (Deepavali), Nov. 21 est. (Eid-ul-Ahza), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

Any holiday falling on a Sunday will be celebrated on the following Monday.

HAITI—Jan. 1 (New Year's and Independence Day), Jan. 2 (Ancestors' Day), Feb. 21 (Carnival, Lundi Gras—afternoon), Feb. 22 (Carnival, Mardi Gras), April 8 (Good Friday), May 1 (Agriculture and Labor Day), May 18 (Flag and University Day), Oct. 18 (Dessalines Day), Oct. 24 (United Nations Day), Nov. 1 (All Saints), Nov. 2 (All Souls—afternoon), Nov. 18 (Armed Forces and Vertieres Day), Dec. 5 (Anniversary of Discovery of Haiti), Dec. 25 (Christmas).

The Haitian Government on short notice may, by decree, designate additional days to be considered as legal business holidays.

HONDURAS—Jan. 1 (New Year's), April 7 (Holy Thursday), April 8 (Good Friday), April 14 (Day of the Americas), May 1 (Labor Day), Sept. 15 (Central American Independence Day), Oct. 3 (Birthday of General Francisco Morazan), Oct. 12 (Discovery of America), Oct. 21 (Armed Forces Day), Dec. 25 (Christmas).

HONG KONG—Jan. 1 (New Year's), Feb. 18-21 (Lunar New Year's), April 5 (Ching Ming Festival), April 8-11 (Easter), April 21 (Queen's Birthday), June 21 (Dragon Boat Festival), July 1 (first weekday in July), Aug. 1 (first Monday in August), Aug. 29 (Liberation Day), Sept. 28 (day following Mid-Autumn Festival), Oct. 21 (Chung Yeung Festival), Dec. 25-27 (Christmas holidays).

HUNGARY—Jan. 1 (New Year's), April 4 (Liberation Day), April 11 (Easter Monday), May 1 (Labor Day), Aug. 20 (Constitution Day), Nov. 7 (October Revolution Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

INDIA—Jan. 1 (Muharram), Jan. 26 (Republic Day), March 6 (Holi), March 29 (Ramnavami), April 2 (Mahavira Jayanti), April 8 (Good Friday), May 3 (Buddha Purnima), Aug. 15 (Independence Day), Sept. 6 (Janamashtami), Sept. 16 (Id-ul-Fitr), Oct. 2 (Gandhi's Birthday), Oct. 20-21 (Dussehra), Nov. 10 (Diwaldi), Nov. 22 (Id-ul-Zuha), Nov. 25 (Guru Nanak's Birthday), Dec. 21 (Muharram), Dec. 25 (Christmas Day).

Restricted holidays may be observed on the following days: Jan. 1 (New Year's), Jan. 14 (Pongal), Feb. 4 (Guru Ravi Das' Birthday); Feb. 16 (Maha Sivaratri), March 3 (Id-Ul-Gamilad), March 5 (Holi), March 20 (Choitra Sukladi), April 13 (Vaisakhi), July 1 (Hazarat Ali's Birthday), Aug. 27 (Onam), Aug. 28 (Raksha Bandham), Sept. 9 (Jamat-ul-Vida), Sept. 16 (Viayaka Chaturthi), Oct. 19 (Dussehra), Oct. 26 (Maharshi Valmiki's Birthday), Nov. 11 (Govardhana Puja), Nov. 12 (Bhai Duj), Dec. 14 (Guru Tegh Bahadur's Martyrdom Day).

INDONESIA—Jan. 1 (New Year's), March 2 (Mohammad's Birthday), April 8 (Good Friday), May 19 (Ascension of Jesus Christ), July 14 (Ascension of Mohammad), Aug. 17 (Independence Day), Sept. 15-16 (Idul Fifhri 1397H), Nov. 21 (Idul Adha 1397H), Dec. 12 (Moslem New Year 1398H), Dec. 25 (Christmas).

IRAN—Jan. 1 (Ashura—10th day after Moharram), Feb. 17 (Deaths of the Prophet & Imam Hassan), March 8 (Birthdays of the Prophet & Imam Jaafar Sadegh), March 21-22 (No-Ruz—Iranian New Year), April 2 (Sizdah—13th day of New Year), July 15 Mabas), Aug. 1 (Birthday of the 12th Imam), Aug. 5 (Constitution Day), Sept. 6 (Death of Imam Ali), Sept. 15 (Id-e-Fitr—1st day after Ramazan), Oct. 9 (Death of Imam Jaafar Sadegh), Oct. 25 (Birthday of Imam Reza), Oct. 26 (Birthday of the Shah), Nov. 22 (Ide-e-Ghorban—Feast of Sacrifice), Nov. 30 (Ide-e-Ghadir), Dec. 21 (Deep Mourning).

The business and government office weekend in Tehran is Thursday and Friday. Many U.S. Government offices observe a Friday-Saturday weekend.

Both government and private sector officials are generally unavailable beginning the week prior to No-Ruz (March 21) and continuing through Sizdah (April 2).

IRAQ—Jan. 1 (Christian New Year), Jan. 2 est. (Ashoura Day), Jan. 6 (Army Day), Feb. 8 (1963 Revolution Anniversary), March 2 est. (Prophet Mohammed's Birthday), March 21 (Kurdish New Year), May 1 (Labor Day), July 14 (1958 Revolution Anniversary), July 17 (1968 Revolution Anniversary), Sept. 14-16 est. (Id al-Fitr), Nov. 23-26 est. (Id al-Adha), Dec. 22 est. (Islamic New Year).

ISRAEL—April 3 (Passover, first day), April 9 (Passover, last day), April 21 (Independence Day), May 23 (Pentecost), Sept. 13-14 (Rosh Hashana—New Year), Sept. 22 (Yom Kippur—Day of Atonement), Sept. 27 (First Day of Tabernacles), Oct. 4 (Last Day of Tabernacles).

On Fridays, and days preceding holidays, businesses close at 1 p.m. Sundays are working days in Israel and on Saturdays all businesses are closed.

Banks are closed on March 4 (Purim) and July 24 (Commemoration of the Temple).

Between the first and last day of Passover and Tabernacles, some businesses and institutions close half days. A few factories take annual leave; others remain open.

ITALY—Jan. 1 (New Year's), Jan. 6 (Epiphany), March 19 (St. Joseph), April 11 (Easter Monday), April 25 (Anniversary of the Liberation of Italy), May 1 (Labor Day), May 19 (Ascension), June 2 (Proclamation of the Italian Republic), June 9 (Corpus Christi), June 29 (Sts. Peter and Paul), Aug. 15 (Assumption), Nov. 1 (All Saints), Nov. 4 (Unity Day), Dec. 7 (St. Ambrogio—Milan's Patron Saint),

Dec. 8 (Immaculate Conception), Dec. 25 (Christmas), Dec. 26 (St. Stephen's Day).

August is usually a poor month for conducting business in Italy, since most business firms are closed for vacations.

The Italian Government is presently considering a bill that would change the dates for observance of several religious holidays listed above.

IVORY COAST—Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), Aug. 15 (Assumption), Nov. 1 (All Saints), Dec. 7 (Independence), Dec. 24-25 (Christmas).

The dates for the Muslim holidays of End of Ramadan and Tabaski are not yet known.

JAMAICA—Jan. 1 (New Year's), Feb. 23 (Ash Wednesday), April 8 (Good Friday), April 11 (Easter Monday), May 23 (Labor Day), Aug. 1 (Independence Day), Oct. 17 (National Heroes' Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

JAPAN—Jan. 1 (New Year's), Jan. 15 (Adult's Day), Feb. 11 (National Foundation Day), March 21 (Vernal Equinox Day), April 29 (Emperor's Birthday), May 3 (Constitution Day), May 5 (Children's Day), Sept. 15 (Respect for the Aged Day), Sept. 23 (Autumnal Equinox Day), Oct. 10 (Sports Day), Nov. 3 (Culture Day), Nov. 23 (Labor Thanksgiving Day).

Government offices and most businesses are closed Dec. 29-Jan. 3.

JORDAN — Jan. 14 est. (Islamic New Year's), Jan. 15 (Arbor Day), March 22 (Arab League Day), March 25 est. (Prophet's Birthday), May 1 (Labor Day), May 25 (Independence Day), Aug. 5 (Arab Renaissance Day), Aug. 11 (King Hussein's Accession to the Throne), Oct. 6 est. (Id-el-Fitr), Nov. 14 (King Hussein's Birthday), Dec. 13 est. (Id-el-Adha).

KENYA—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Monday), May 2 (Labor Day), June 1 (Madaraka Day), Oct. 20 (Kenyatta Day), Dec. 12 (Independence Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

Id-ul-Fitr (Islamic holiday ending Ramadan) is observed as a public holiday. The date varies and is expected to occur about Sept. 16 in 1977.

Id-ul-Azha is a holiday for people of the Islamic faith and is expected to occur about Nov. 29 in 1977.

KOREA—Jan. 1-3 (New Year's), March 1 (Independence Movement Day), April 5 (Arbor Day), May 5 (Children's Day), May 25 (Buddha's Birthday), June 6 (Memorial Day), July 17 (Constitution Day), Aug. 15 (Independence Day), Sept. 27 (Thanksgiving Day), Oct. 1 (Armed Forces Day), Oct. 3 (National Foundation Day), Oct. 9 (Anniversary of Proclamation of Korean Alphabet Day), Dec. 25 (Christmas).

KUWAIT—Feb. 25 (National Day), March 2 (Birthday of the Prophet), July 14 est. (Ascension of the Prophet), Sept. 14-18 est. (Id-al-Fitr—end of Ramadan fast), Nov. 22-26 est. (Id-al-Adha).

LEBANON—Jan. 1 (New Year's), Jan. 1 est. (Ashura), Feb. 9 (St. Maron's Day), March 2 est. (Prophet's Birthday), March 22 (Arab League Day), April 8 (Good Friday), April 11 (Easter Monday), May 1 (Labor Day), May 6 (Martyrs' Day), May 19 (Ascension), Aug. 15 (Assumption), Sept. 12 est. (Feast of Ramadan), Nov. 1 (All Saints), Nov. 21 est. (Feast of Al-Adha), Nov. 22 (Independence Day), Dec. 10 est. (Moslem New Year's—Hijra), Dec. 25 (Christmas).

In the case of holidays falling on Sunday, observance on Saturday or Monday will depend on Lebanese Government action.

LESOTHO—Jan. 1 (New Year's), March 12 (Moshoeshoe's Day), March 21 (National Tree Planting Day), April 8 (Good Friday), April 11 (Easter Monday), May 2 (King's Birthday), May 19 (Ascension), May 24 (Commonwealth Day), July 4 (Family Day), Oct. 3 (National Sports Day), Oct. 4 (Independence Day), Dec. 25 (Christmas), Dec. 27 (Boxing Day).

When any holiday falls on Sunday, the following Monday is observed as a holiday.

LIBERIA—Jan. 1 (New Year's), Jan. 7 (Pioneers' Day), Feb. 11 (Armed Forces Day), March 9 (Decoration Day), March 15 (J. J. Robert's Birthday), April 8 (Fast and Prayer Day), May 14 (National Unification Day), July 26 (Independence Day), Aug. 24 (Flag Day), Nov. 3 (Thanksgiving), Nov. 29 (The Late President William V. S. Tubman's Birthday), Dec. 1 (Matilda Newport Day), Dec. 25 (Christmas).

MALAWI—Jan. 1 (New Year's), March 3 (Martyrs' Day), April 8 (Good Friday), April 11 (Easter Monday), May 14 (Kamuzu Day), July 6 (Republic Day), Aug. 1 (Bank Holiday), Oct. 17 (Mothers' Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

In addition, July 5 and 7 are expected to be declared public holidays.

MALAYSIA—Feb. 18-19 (Chinese New Year's), March 2 (Prophet Muhammad's Birthday), May 1 (Labor Day), May 2 (Wesak Day), June 1 (King's Birthday), Aug. 31 (National Day), Sept. 15-16 (Hari Raya Puasa), Nov. 10 (Hari Deepavali), Nov. 21 (Hari Raya Haji), Dec. 25 (Christmas).

Regional holidays: Feb. 1 (City Day), Federal Capital of Kuala Lumpur; March 8 (Sultan's Birthday), State of Selangor (excluding Kuala Lumpur city).

When a holiday falls on a weekend the following day will be a public holiday.

MEXICO—Jan. 1 (New Year's), Feb. 5 (Anniversary of Constitution), March 21 (Juarez' Birthday), April 8 (Good Friday), May 1 (Labor Day), May 5 (Anniversary of Battle of Puebla), Sept. 16 (Anniversary of Proclamation of Independence), Oct. 12 (Columbus Day), Nov. 2 (All Souls), Nov. 20 (Anniversary of Revolution), Dec. 25 (Christmas).

Government offices and many businesses will be closed Sept. 1 (President's Annual State of the Union Address).

MOROCCO—Jan. 1 (New Year's), March 3 (Aid-al-Arsh—Feast of the Throne), March 4 est. (Aid Mouloud—Prophet's Nativity Day), May 1 (Labor Day), Sept. 16 est. (Aid-el-Fitr—end of Ramadan), Nov. 18 (Independence Day), Nov. 23 est. (Aid-el-Kebir—Feast of Pilgrimage), Dec. 12 est. (1st Moharram—Moslem New Year).

In addition, some private firms (excluding banks and insurance companies) and those of the Christian and Jewish faiths, observe the following religious holidays:

Christian holidays: April 10 (Easter), May 19 (Ascension), May 30 (Whit Monday), Aug. 15 (Assumption), Nov. 1 (All Saints), Dec. 25 (Christmas).

Jewish holidays: April 3 (Passover), Sept. 13 (Rosh Hashana), Sept. 22 (Yom Kippur).

During the month of Ramadan, approximately Aug. 17-Sept. 15, banks will be open 9:30 a.m.-2 p.m., and government offices 9 am.-2 p.m.

HOLIDAY IN CANADA—*Dominion Day brings Canadians together for celebration on July 1. Parliament Hill in Ottawa, above, is one meeting ground.*

NEPAL—Jan. 10 (Prithvi Jayanti), Jan. 24 (Basanta Panchami), Feb. 16 (Shivaratri), Feb. 18 (Tribhuvan Jayanti and National Democracy Day), March 8 (Women's Day—for women only), March 28 (Chaitra Ashtami), March 29 (Ram Navami), April 13 (New Year's), May 3 (Buddha Jayanti), Aug. 28 (Janai Purnima), Sept. 5 (Krishna Jayanti), Sept. 16 (Tij—for women only), Oct. 13 (Ghatasthapana), Oct. 19-26 (Dasain), Nov. 7 (Queen Aishwarya's Birthday—for women only), Nov. 10-12 (Tihar), Dec. 16 (Mahendra Jayanti and Constitution Day), Dec. 29 (King Birendra's Birthday).

Regional holidays: March 19 (Ghode Jatra), Kathmandu Valley only, Aug. 29 (Gai Jatra), Kathmandu Valley only), Sept. 26 (Indra Jatra), Kathmandu Valley only.

All dates after April 13 should be considered tentative.

NETHERLANDS—Jan. 1 (New Year's), April 8-11 (Good Friday through Easter Monday), April 30 (Queen's Birthday), May 19 (Ascension), May 30 (Whit Monday), Dec. 25-26 (Christmas).

In addition, many businesses are closed the afternoons of Dec. 5 (St. Nicholas' Eve), Dec. 24 (Christmas Eve), and Dec. 31 (New Year's Eve).

NEW ZEALAND—Jan. 3-4 (New Year's observance), Feb. 7 (New Zealand Day), April 8 (Good Friday), April 11 (Easter Monday), April 25 (ANZAC

Day), June 6 (Queen's Birthday), Oct. 24 (Labor Day), Dec. 26-27 (Christmas observance).

Regional holidays: Jan. 24 (Wellington Anniversary Day), Wellington area only, Jan. 31 (Auckland Anniversary Day), Auckland area only, Dec. 16 (Canterbury Anniversary Day), observed in Christchurch and greater Canterbury area only.

NICARAGUA—Jan. 1 (New Year's), April 7 (Holy Thursday), April 8 (Holy Friday), May 1 (Labor Day), July 14 (Day of National Dignity), Sept. 14 (Battle of San Jacinto), Sept. 15 (Independence Day), Oct. 12 (Columbus Day), Dec. 25 (Christmas).

Business persons should try to avoid visiting Nicaragua during the entire Holy Week (April 4-9), as the majority of businesses grant employees a full week's vacation, and Dec. 24-Jan. 6, when most government offices are closed.

In Managua only, the capital city, Aug. 1 and 10 of each year are half-day holidays for government and most businesses in celebration of the city's patron saint.

Other unofficial but generally observed holidays are May 27 (Army Day), the afternoon of Nov. 2 (All Souls), and Dec. 8 (Immaculate Conception).

Legal holidays falling on Sunday are observed on the following Monday.

NIGER—Jan. 1 (New Year's), sometime in March (Mohammed's Birthday/Mouloud), April 15 (Anniversary of SMC), April 11 (Easter Monday), May 1 (Labor Day), Aug. 3 (Independence Day), sometime in October (Id-al-Fitr/Korite), sometime in December (Id-al-Adha/Tabaski), Dec. 18 (Republic Day), Dec. 25 (Christmas).

NIGERIA—Jan. 1 (New Year's), March 1 (Id-el-Maulud), April 8 (Good Friday), April 11 (Easter Monday), Sept. 13-14 (Id-el-Fitr), Sept. 30-Oct. 1 (National Day), Nov. 20-21 (Id-el-Kabir), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

Although the Black Arts Festival (FESTAC) in Lagos and Kaduna Jan. 15-Feb. 12 is not an official holiday, the virtual impossibility of obtaining lodgings during the entire months of January and February effectively prevents formal trade promotions during that period. Individual business travel to Lagos and Kaduna at that time is discouraged unless travelers have guaranteed lodging and assurance that their intended contacts are available.

NORWAY—Jan. 1 (New Year's), April 7 (Holy Thursday), April 8 (Good Friday), April 11 (Easter Monday), May 17 (Constitution Day), May 19 (Ascension), May 30 (Whit Monday), Dec. 26 (2nd Christmas Day).

OMAN—March 4 (Prophet's Birthday), July 17 (Prophet's Ascension), Sept. 14-17 est. (Eid-al-Fitr), Nov. 18-19 (National Days), Nov. 22-26 est. (Eid-al-Adha), Dec. 13 (Islamic New Year's).

Jan. 1 (New Year's) is not observed officially by the Oman Government but is frequently observed by commercial firms.

PAKISTAN—Jan. 1 est. (Muharram—Ashura), March 3 est. (Eid-i-Milad-un-Nabi), March 23 (Pakistan Day), April 21 (Death Anniversary of Allama Iqbal), May 2 (May Day), July 1 (Bank Holiday), Aug. 15 (Independence Day), Sept. 6 (Defense of Pakistan Day), Sept. 9 (Jumatul-Wida), Sept. 12 (Death Anniversary of Quiaid-i-Azam), Sept. 15-16 est. (Eid-ul-Fitr), Nov. 9 (Birthday of Allama Iqbal), Nov. 22-23 est. (Eid-ul-Azha), Dec. 21 est. (Muharram-Ashura), Dec. 26 (Birthday of Quiaid-I-Azam and Christmas), Dec. 31 (Bank Holiday).

PANAMA—Jan. 1 (New Year's), Jan. 9 (Day of Mourning), Feb. 22 (Mardi Gras), April 8 (Good Friday), May 1 (Labor Day), Oct. 11 (Revolution Day), Nov. 3 (Independence Day), Dec. 8 (Mothers' Day), Dec. 25 (Christmas).

Most stores and offices close from Feb. 19-22, Mardi Gras Day.

PARAGUAY—Jan. 1 (New Year's), Feb. 3 (St. Blas, Patron of Paraguay), April 7-8 (Easter), May 1 (Labor Day), May 14-15 (Independence), June 9 (Corpus Christi), June 12 (Chaco War Armistice), Aug. 15 (Founding of Asuncion), Aug. 25 (Constitution Day), Sept. 29 (Victory of Bogneron Day), Oct. 12 (Columbus Day), Nov. 1 (All Saints), Dec. 8 (Virgin of Caacupe), Dec. 25 (Christmas).

PERU—Jan. 1 (New Year's), April 7 afternoon (Holy Thursday), April 8 (Good Friday), May 1 (Labor Day), June 29 (Sts. Peter and Paul), July 28-29 (Independence Day), Aug. 30 (Santa Rosa de Lima), Oct. 9 (National Day of Dignity), Nov. 1 (All Saints), Dec. 8 (Immaculate Conception), Dec. 25 (Christmas).

PHILIPPINES—Jan. 1 (New Year's), April 8 (Good Friday), April 9 (Bataan Day), June 12 (Independence Day), July 4 (Philippine-American Friendship Day), Nov. 30 (National Heroes Day), Dec. 25 (Christmas), Dec. 30 (Rizal Day).

Moslem holidays are observed locally, in the south Philippine islands.

POLAND—Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Workers' Day), June 9 (Corpus Christi), July 22 (National Day), Nov. 1 (All Saints), Dec. 25 (Christmas).

PORTUGAL—Jan. 1 (New Year's), March 2 (Carnival), April 8 (Good Friday), May 1 (Labor Day), June 9 (Corpus Christi), June 10 (Portugal Day), Aug. 15 (Assumption), Nov. 1 (All Saints), Dec. 8 (Immaculate Conception), Dec. 25 (Christmas).

Regional holiday: June 13 (St. Antonio Day), Lisbon only.

Holidays shown for Portugal should be considered tentative, as an official list is not yet available.

QATAR—Sept. 3 (National Day), Sept. 11-13 est. (Eid-al-Fitr), Nov. 19-21 est. (Eid-al-Adha).

ROMANIA—Jan. 1-2 (New Year's), May 1-2 (International Workers' Day), Aug. 23-24 (National Liberation Day).

RWANDA—Jan. 1 (New Year's), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), July 1 (National Day), July 5 (Anniversary of Second Republic), Aug. 15 (Assumption), Sept. 25 (Referendum Day), Oct. 26 (Armed Forces Day), Nov. 1 (All Saints), Dec. 25 (Christmas).

SAUDI ARABIA—March 2 est. (Birthday of the Prophet), July 14 est. (Ascension of the Prophet), Sept. 14-18 est. (Id-al-Fitr—end of Ramadan fast), Nov. 22-26 est. (Id-al-Adha—end of Pilgrimage Month).

Ramadan will start in 1977 about Aug. 15, and the annual Haj (or Pilgrimage) month approximately Sept. 22; usual Saudi practice has been to limit issuance of visas during this period.

SENEGAL—Jan. 1 (New Year's), March 4 est. (Mawloud), April 4 (Independence Day), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), Aug. 15 (Assumption), Sept. 17 est. (Korite), Nov. 1 (All Saints), Nov. 23 est. (Tabaski), Dec. 25 (Christmas).

SIERRA LEONE—Jan. 1 (New Year's), sometime in March (Moulid-un-Nabi), April 8 (Good Friday), April 11 (Easter Monday), April 19 (Republic Day), sometime in August (Eid-ul-Fitri), sometime in September (Eid-ul-Adha), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

SOMALIA—March 2 est. (Prophet's Birthday), May 1 (Labor Day), June 26 (Independence Day of Northern Region), July 1 (Anniversary of the Somali Revolutionary Socialist Party and Independence Day of Somali Democratic Republic), Sept. 13-14 est. (Idd el-Fitr), Nov. 20 est. (Idd el-Adha).

SOUTH AFRICA—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Monday), May 19 (Ascension), May 31 (Republic Day), Sept. 6 (Settlers' Day), Oct. 10-11 (Kruger Day), Dec. 16 (Day of the Covenant), Dec. 26 (Christmas), Dec. 27 (Boxing Day).

SPAIN—Jan. 1 (New Year's), Jan. 6 (Epiphany), March 19 (St. Joseph's), April 7 (Holy Thursday), April 8 (Good Friday), May 1 (Labor Day), May 19 (Ascension), June 9 (Corpus Christi), July 25 (Santiago Day), Aug. 15 (Assumption), Nov. 1 (All Saints), Dec. 8 (Immaculate Conception), Dec. 25 (Christmas).

Regional holidays: April 11 (Easter Monday), Barcelona; May 15 (San Isidro), Madrid; June 24 (St. John the Baptist), Barcelona; July 31 (St. Ignatius), Bilbao; Sept. 24 (Our Lady of Mercy), Barcelona.

Holidays shown for Spain should be considered tentative, as an official list is not yet available.

SRI LANKA—Jan. 4 (Full Moon Poya), Jan. 14 (Tamil Thai Pongal), Feb. 3 (Full Moon Poya), Feb. 16 (Maha Sivarathri), March 3 (Holy Prophet's Birthday), April 8 (Good Friday), April 12 (Day prior to Sinhala and Tamil New Year), April 13 (Sinhala and Tamil New Year), May 3 (Full Moon Poya), May 4 (Day following Wesak Full Moon Poya), June 1 (Full Moon Poya), June 30 (Full Moon Poya), July 29 (Full Moon Poya), Sept. 15 (Ramazan Festival), Sept. 26 (Full Moon Poya and Bandaranaike Commemoration Day), Oct. 26 (Full Moon Poya), Nov. 10 (Deepavali Festival), Nov. 22 (Hajj Festival), Nov. 25 (Full Moon Poya).

In addition, June 30 and Dec. 31 are special bank holidays.

SUDAN—Jan. 1 (Independence Day), March 2 (Muhammed's Birthday),

March 3 (Southern Accord Anniversary), April 11 (Sham el Nassem), May 25 (Anniversary of May Revolution), Sept. 13-17 (Ramadan Bairam), Nov. 20-24 (Kurban Bairam), Dec. 12 (Muslim New Year), Dec. 25 (Christmas).

SWEDEN—Jan. 1 (New Year's), Jan. 6 (Thirteenth Day of Christmas), April 8 (Good Friday), April 11 (Easter Monday), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), June 24 (Midsummer Eve), June 25 (Midsummer Day), Nov. 1 (All Saints), Dec. 25-26 (Christmas).

SWITZERLAND—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Monday), May 19 (Ascension), May 30 (Whit Monday), Aug. 1 (Swiss National Day), Dec. 24 afternoon (Christmas Eve), Dec. 26 (St. Stephen's).

Regional holidays: Feb. 28-March 2 (Carnival), Basel; April 18 (Sechselauten), Zurich; Sept. 8 (Thanksgiving), Geneva; Sept. 12 (Knabenschiessen), Zurich; Dec. 31 (Restoration Day), Geneva.

TAIWAN—Jan. 1 (New Year's and Commemoration Day of the Republic of China), Feb. 17-18 (Chinese New Year's), March 29 (Youth Day and Chinese Martyrs' Day), April 5 (National Festival of the Sweeping of the Tombs, and Death of President Chiang Kai-shek), June 21 (Dragon Boat Festival), Sept. 27 (Moon Festival), Sept. 28 (Birthday of Confucius and Teachers' Day), Oct. 10 (Double Ten Day), Oct. 25 (Restoration Day), Oct. 31 (Birthday of President Chiang Kai-shek), Nov. 12 (Birthday of Dr. Sun Yat-sen), Dec. 25 (Constitution Day).

TANZANIA—Jan. 12 (Zanzibar Revolution Day), Feb. 5 (Merger of TANU and ASP Parties), March 4 est. (Maulid), April 8 (Good Friday), April 11 (Easter Monday), April 26 (Union Day), May 1 (International Workers Day), Sept. 15 and 16 est. (Id-el-Fitr), Nov. 22 est. (Idd-el-Hajj), Dec. 9 (Independence and Republic Day), Dec. 25 (Christmas).

THAILAND—Jan. 1 (New Year's), Feb. 18 (Chinese New Year's), March 4 (Makha Bucha Day), April 6 (Chakri Day), April 13 (Songkran Day), May 1 (Labor Day), May 5 (Coronation Day), June 1 (Wisakha Bucha Day), July 31 (Buddhist Lent Day), Aug. 12 (Queen's Birthday), Oct. 23 (Chulalongkorn Day), Dec. 5 (King's Birthday), Dec. 10 (Constitution Day), Dec. 25 (Christmas), Dec. 31 (New Year's Eve).

TOGO—Jan. 1 (New Year's), Jan. 13 (National Liberation Day), April 11 (Easter Monday), April 27 (Independence Day), May 1 (Labor Day), May 19 (Ascension), May 30 (Whit Monday), Aug. 15 (Assumption), Nov. 1 (All Saints), Dec. 25 (Christmas).

TRINIDAD AND TOBAGO—Jan. 1 (New Year's), April 8 (Good Friday), April 11 (Easter Monday), May 30 (Whit Monday), June 9 (Corpus Christi), June 19 (Labor Day), Aug. 1 (Discovery Day), Aug. 31 (Independence Day), Sept. 24 (Republic Day), Dec. 25 (Christmas), Dec. 26 (Boxing Day).

The dates of Divali, a Hindu holiday occurring some time in October-November, and Eid-ul-Fitr, a Muslim holiday that may fall between October and March, are determined by lunar phases and will be announced only shortly before they occur.

TUNISIA—Jan. 1 (New Year's), Jan. 18 (Remembrance Day), March 2 est. (Mouled), March 20 (Independence Day), April 9 (Martyrs' Day), May 1 (Labor Day), June 1-2 (Victory Day), July 25 (Republic Day), Aug. 3 (President's Birthday), Aug. 13 (Women's Day), Sept. 3 (Commemoration of Sept. 3, 1934), Sept. 14 est. (Aid Seghir), Oct. 15 (Evacuation of Bizerte), Nov. 21 est. (Aid el Kebir), Dec. 12 est. (Ras Tolam el Hijri).

TURKEY—April 22 afternoon (National Sovereignty and Children's Day), May 19 (Youth and Sports Day), May 26 afternoon—May 27 (Freedom and Constitution Day), Aug. 30 (Victory Day), Sept. 14-16 (Feast of Sugar), Oct. 28 afternoon (Independence Day), Nov. 21-24 (Feast of Sacrifice).

UNITED ARAB EMIRATES—Jan. 1 (New Year's), March 4 (Prophet's Birthday), July 17 (Prophet's Ascension), Sept. 14-17 est. (Id-al-Fitr), Aug. 6 (Accession of the Ruler), Nov. 21-25 est. (Waqfat Arafat & Id-al-Adha), Dec. 2 (National Day), Dec. 13 (Hijri-New Year's), Dec. 24-25 (Christmas).

UNITED KINGDOM—Jan. 1 (New Year's), April 8 (Good Friday), June 6 (Bank Holiday), Aug. 1 (Bank Holiday), Aug. 29 (Bank Holiday), Dec. 25-26 (Christmas), Dec. 27 (Boxing Day).

Regional holidays: Jan. 3 (Bank Holiday), Scotland; March 17 (St. Patrick's Day), N. Ireland; April 11 (Easter Monday), U.K., excluding Scotland; May 2 (Bank Holiday), Scotland; May 9 (Liberation Day), Channel Islands.

URUGUAY—Jan. 6 (Ephiphany), Feb. 21-22 (Carnival), April 7-8 (Holy Week or Tourism Week), April 19 (Landing of the 33), May 18 (Battle of Las Piedras), July 18 (Constitution Day), Aug. 25 (Independence Day), Oct. 12 (Columbus Day), Nov. 2 (All Souls), Dec. 8 (Beach Day).

All government offices, public agencies and private businesses will be closed on April 19, May 1, July 18 and Aug. 25. Government agencies and banks will be closed on all other holidays but some private businesses may be open. During both Carnival and Holy Week many businesses close for a ten-day period, e.g., Feb. 21-March 2, and April 4-13.

USSR—Jan. 1 (New Year's), March 8 (Women's Day), May 1-2 (May Days), May 9 (Victory Day), Nov. 7-8 (October Revolution), Dec. 5 (Constitution Day).

VENEZUELA—Jan. 1 (New Year's), Feb. 21-22 (Carnival), March 19 (St. Joseph's Day), April 7 (Maundy Thursday), April 8 (Good Friday), April 19 (Declaration of Independence), May 1 (Labor Day), June 24 (Battle of Carabobo), July 5 (Independence Day), July 24 (Bolivar's Birthday and Anniversary of Battle of Lake Maracaibo), Oct. 12 (Columbus Day), Dec. 24 afternoon-Dec. 25 (Christmas).

Although neither the Venezuelan Government nor the U.S. Embassy will observe the two days of Carnival, widespread closing of commercial and banking entities during this period is traditional.

Jan. 6 (Epiphany), May 19 (Ascension), June 9 (Corpus Christi), June 29 (Sts. Peter & Paul), Aug. 15 (Assumption), Nov. 1 (All Saints) and Dec. 8 (Immaculate Conception) are observed only by the banking sector. When these holidays fall on a Tuesday or Wednesday, they will be observed on the prior Monday. When the holiday falls on a Thursday or Friday, it will be observed on the following Monday.

Regional holidays: Feb. 3 (Sucre's Birthday), Cumana; March 10 (Vargas' Day), La Guaira; Oct. 24 (Urdaneta's Birthday), Maracaibo; Nov. 18 (Virgin of Chiquinquira), Maracaibo.

YEMEN ARAB REPUBLIC—Feb. 26 est. (Prophet's Birthday), May 1 (Labor Day), June 13 (2nd. Corrective Movement), Sept. 12-16 est (End of Ramadan, Id-al-Fitr), Sept. 26 (Revolution Day), Oct. 14 (South Yemen Independence Day), Nov. 20-25 est. (Id-al-Idha Feast), Dec. 21 est. (Moslem New Year's).

Ramadan in 1977 will begin on approximately Aug. 13, and will culminate in the four-day Id-al-Fitr holiday. During this period, government offices are open only a few hours each day, generally 10 a.m. to 2 p.m. Businesses are usually open during these hours and in the evenings as well, although some of the more prominent ones give their employees an annual two-week holiday during this period.

The normal work week in the Yemen is Saturday through Thursday, 9 a.m. to 1 p.m. and 4 p.m to 7 p.m. The American Embassy is open Saturday through Wednesday, 8 a.m. to 1 p.m. and 2:30 p.m. to 5:30 p.m.

YUGOSLAVIA—Jan. 1-2 (New Year's), May 1-2 (May Day), July 4 (Fighter's Day), Nov. 29-30 (Day of the Republic).

According to Yugoslav law, when one day of a two-day holiday falls on a Sunday, the following workday (Monday or Tuesday) is to be observed as a holiday.

Regional holidays: July 7 (Serbian Uprising Day), Belgrade; July 22 (Slovenian Uprising Day), Ljubljana; July 27 (Croatian Uprising Day), Zagreb, and (Bosnian Uprising Day and Hercegovina Uprising Day), Sarajevo; Aug. 2 and Oct. 11 (Macedonian Uprising Day), Skopje; Nov. 1 (Slovenian Day of the Dead), Ljubljana.

ZAIRE—Jan. 1 (New Year's), Jan. 4 (Martyrs of Independence), May 1 (Labor Day), May 20 (Founding of the Popular Movement of the Revolution), June 24 (Constitution Day), June 30 (Independence Day), Aug. 1 (Parents' Day), Oct. 14 (President's Birthday and Youth Day), Oct. 27 (Zaire Day), Nov. 17 (Army Day), Nov. 24 (New Regime Day).

ZAMBIA—Jan. 1 (New Year's), April 8 (Good Friday), April 9 (Holy Saturday), May 1 (Labor Day), May 24 (Africa Freedom Day), July 5 (Heroes Day), July 6 (Unity Day), Aug. 9 (Youth Day), Oct. 24-25 (Independence Day), Dec. 25 (Christmas).

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises, visiting buyers, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

Motor Vehicle Maintenance Equipment, Replacement Parts and Supplies Exhibition. U.S. Trade Center, Mexico City. Jan. 25-28. The Mexican motor vehicle census has increased from 800,000 passenger cars, trucks and buses in 1960 to 3.2 million in 1974. Mexican purchase of motor vehicle replacement parts, service equipment and automotive chemicals was $194 million in 1974 and is expected to more than double by 1980. Mary R. Wiening, 202-377-4463.

Business Equipment and Systems Exhibition. U.S. Trade Centers, Paris, Jan. 31-Feb. 3; London, Feb. 8-11. These events will provide exceptional sales opportunities for American manufacturers. Past experience has shown that they attract executives influential in the purchase of equipment. The U.S. Trade Centers in Paris and London provide an effective and economical means of reaching buyers or setting up distribution. Exhibitor's contribution fee is $900 for companies new-to-market and $2,000 for those already established. Dwight L. Umstead, 202-377-4414 or 2177.

Avionics and Ground Support Equipment Technical Sales Seminar. Greece, Italy and Yugoslavia. Feb. 1-10. Seminar sessions will be conducted in Athens, Rome and Belgrade. "State of the art" presentations emphasizing the latest technological achievements in specific areas of avionics and ground support equipment will be given. Product categories to be included encompass communications such as traffic controls and flight instrumentation such as navigational aids commonly found in aircraft. Also, terminal support equipment and products used to test and service aircraft and aircraft engines as well as baggage and cargo handling systems. Airport and aircraft requirements are expanding rapidly as efforts are made to modernize and improve air transportation systems in these countries. W. Bradley Tyrrell, 202-377-5285.

Hi-Fi Equipment Exhibition. U.S. Trade Center, Milan. Feb. 4-7. A special opportunity to show and sell the latest in hi-fi equipment is being offered to a limited number of American manufacturers. The U.S. Trade Center staff in Milan will launch an exceptional promotional campaign aimed at the widest possible trade and consumer audience exposure. AM-FM stereo equipment, amplifiers, speakers, synthesizers, electric guitars, tuners, microphones, headphones and complete amplifier systems are some of the items that will make up the exhibition. Call Mike Springmann, 202-377-2762.

Poultry Equipment Mini-Exhibit/Seminar. U.S. Commercial Office, Moscow. Feb. 7-10. The USSR's 1976-80 Five-Year Plan calls for a 100 percent increase in poultry production to be achieved by more mechanization and introduction of progressive techniques. New mechanized poultry farms and factories are planned and existing poultry farms are to be rebuilt using new machinery and technology that must be imported. Call Bob Bradshaw, 202-377-5163.

Maritime USA '77—Port and Shipbuilding Exhibition. Kaohsiung. Feb. 7-11. The market for maritime, port and shipbuilding equipment in the Republic of China is growing at a rapid pace. Imports are estimated to reach $317 million by 1979. U.S. manufacturers are expected to supply one-third of this market, which consists of both government and private enterprises. Dave Horridge, 202-377-2798 or 5545.

Electric Energy Systems Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Feb. 7-11. U.S. firms supplying this equipment have excellent markets in Singapore, Malaysia and Indonesia in both private and public sectors. Imports by Singapore alone totaled $172 million last year with strong growth expected. This exhibition, featuring generation, transmission and distribution, and instrumentation equipment, provides direct access to all three markets. Space is limited. Call Helen Burroughs, 202-377-2051.

International Houseware Fair. Cologne. Feb. 12-14. Products to be exhibited at the American Pavilion include: domestic machines and appliances, kitchen utensils, household and cleaning aids, incidental furniture and wicker articles, cutlery and flatware, fine metalwares and tableware articles, gift items, and arts and crafts. Germany's 62 million people live in 23.7 million households and spent $3.6 billion in 1975 on housewares. The market is expected to increase 3.5-5 percent annually during the next 3 years. Scheduled to coordinate with the International Hardware Fair, which in 1977 is expected to attract more than the 20,000 trade visitors from 64 countries recorded in 1976. Don Schmadel, 202-377-2177.

Electronic Data Processing Technical Sales Seminar. Bahrain, Iraq, Kuwait, Saudi Arabia. Feb. 13-28. Market information indicates an expanding market for American-made EDP products—particularly for firms whose products are compatible with IBM or NCR equipment. High interest in this event already has been expressed by government officials in the data processing field in these countries. Contact Brad Tyrrell, 202-377-4304.

Printing and Graphic Arts Exhibition, U.S. Trade Center, Tokyo. Feb. 14-18. Carefully researched projections of the Japanese market for printing and graphic arts equipment indicate a growth from $290 million to $335 million over the next three years. In 1979 total imports will approximate $83 million with the U.S. share exceeding $25 million. Imported equipment will include typemaking and typesetting machinery, presses, bookbinding machinery, and photographic equipment for the graphics industry. Purchasers will be interested in both new investment and replacement equipment. During the recession period of 1974-1975 imports of printing and graphic arts equipment registered a 20 percent decline; however U.S. exports in this product category for the same period increased nearly 20 percent, demonstrating growing demand. Cantwell Walsh, 202-377-4056.

Printing & Graphic Arts Equipment Product Literature Display. Johannesburg and Cape Town. Feb. 14-25. Trade sources indicate that for 1976-1980 a general growth rate of between 10 and 12 percent can be expected for printing and graphic arts equipment in South Africa. South Africa must import all of its printing and graphic arts equipment except for less sophisticated equipment such as sink units and washing equipment. Despite their appreciation for the quality and sophistication of American-made equipment in this field, a major share of the market goes to other suppliers. The primary reason is the lack of exposure of U.S. equipment in South Africa against the extensive promotion efforts conducted by U.S. competitors. This product literature display is important to offset these trends. Call 202-377-3973.

Agricultural Machinery & Equipment Exhibition. Guadalajara. Feb. 16-20. Mexican agricultural machinery and equipment imports are expected to exceed $110 million this year and are projected to increase by 25 percent annually for the next three to four years. Guadalajara is the second largest city in Mexico and one of its major agricultural centers. Call C. M. Cummings, 202-377-4463.

Agricultural Machinery Catalog Exhibit. Morocco, Tunisia, Libyan Arab Republic. Feb. 23-March 3. Agriculture is the main economic activity in Morocco and Tunisia, employing 70 and 60 percent of the population, respectively. Libya has placed

highest priority on the reduction and eventual elimination of food imports, for which it is now almost totally dependent. The primary interest of all three countries is in irrigation and land reclamation. All three have earmarked large sections of their development budgets for agricultural development. None of these countries produces much agricultural machinery, and this, combined with their emphasis on agricultural development, should make them attractive markets for agricultural machinery. Call 202-377-3973.

Casual Sportswear Exhibition—"Clothing USA." U.S. Trade Center, Milan. Feb. 25-28. Great sales are in store for American sportswear in Italy! You are no doubt aware of the Italian demand for American-manufactured casual apparel and have probably already done some business there. To increase your exposure and export sales join other leading manufacturers of casual sportswear apparel in this show. Call Marcia Griffin, 202-377-4509.

Tropical Food Product Processing and Packaging Specialized Trade Mission. Kenya, Cameroon, Ivory Coast. March. Kenya, Cameroon and Ivory Coast are characterized by diverse climatic and topographic conditions, high potential for producing a variety of food crops, and marked similarity in tropical food products grown. The governments of all three countries place high priority on expansion of agricultural production and development of food processing and packaging as major sources of foreign exchange earnings. Local manufacture of processing and packaging equipment is virtually non-existent. Government policy in all three countries provides a most receptive climate for foreign equipment and service suppliers and foreign investors. Bertil Renborg, 202-377-4511.

Computer Equipment Trade Mission to Belgium, Netherlands and Luxembourg. March 1-11. Will focus on computer applications for business efficiency and will promote such equipment as minicomputers, on-line point of sale systems, stock control and distribution systems, input devices for electronic computers such as optical character recognition (OCR), high speed printers, programmable terminals with local mass storage, and bank and financial terminals. Will also include computer programming and other software services. The U.S. share of computer imports into the Benelux countries is currently 84 percent for minicomputers, 23 percent for small, medium and large computers, and 23 percent for peripheral equipment. William Vitous, 202-377-3742.

Motor Vehicle Maintenance Equipment, Replacement Parts, and Supplies Catalog Exhibit. Nigeria, Zaire and Zambia. March 9-22. As a result of Nigeria's oil revenues the government has devised a five-year $50 billion development plan to cover all sectors of the economy and raise the national standard of living. A substantial part of the plan will be devoted to maintaining and expanding infrastructure ($7 billion for highway construction alone). Nigeria is still wholly dependent on imports to satisfy motor vehicle maintenance equipment needs. Couple the Nigerian demand for imports with the surge in motor vehicle assembly plants and there will be strong demand for maintenance equipment and parts for the foreseeable future. Zambia is a landlocked country and thus has to rely heavily on land transport systems to move copper to foreign ports. Zaire has been actively seeking direct foreign investment to enable it to grow. Foreign aid has been directed towards the agricultural and transportation sectors. 202-377-3973.

Industrial Instrumentation. Leipzig Spring Fair, German Democratic Republic. March 13-20. The second U.S.-sponsored exhibition at Leipzig will feature industrial instrumentation primarily applicable to the machine tool and processing machinery construction industry, the chemical industry, and the electrical engineering industry. Emphasis on these sectors is based on a realignment of economic policy goals calling for reinforcement of the raw materials base, an increase in and improvement of consumer goods to the public, and a production increase in the export sector. Buyers and trade officials from throughout Eastern Europe and the Soviet Union see this as their opportunity to inspect western goods and make purchasing decisions. Bob Bradshaw, 202-377-5163.

"PRINTEMPS INFORMATIQUE" (Computers and related equipment) Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. March 14-17. Computer firms seeking to establish in the French market have an excellent opportunity to participate in this major annual computer exhibition, offered in conjunction with a "Computer-Aided Business" trade mission to the Benelux countries March 1-11. Peter B. Field, 202-377-3337.

Building Products and Systems, Construction Equipment and Architectural Hardware Exhibition. U.S. Trade Center, Tokyo. March 14-18. In 1974 the Japanese market for these products was $34 billion. The forecast for 1980 is $54 billion. New construction there is strongly influenced by western style and ideas. Private and public construction in 1974 was 2 million units valued at $67.9 billion. The 1980 projection calls for 3.1 million units at $110.1 billion. The Japanese seek advanced design interior and exterior building products of quality, and knowledge of building systems and methods that U.S. manufacturers can supply. Robert Levine, 202-377-4056.

Commercial and Industrial Security Equipment Exhibition. London Trade Center, March 14-18, and Milan Trade Center, March 22-26. Strong and growing demand for this equipment has been identified by recent market research. The combined market for Italy and the United Kingdom amounts to about $350 million, of which about one third represents imported equipment. Products having high sales potential include intrusion alarm devices, security cameras, closed circuit television systems, access control equipment, fire detection alarms, automotive checking systems, anti-shop lifting devices, "bomb sniffers" and many others. Contact Sam Spaulding, 202-377-4508.

Tokyo Anti-Pollution Exhibition, TAPEX '77 Trade Fair, Harumi Pier, Tokyo. March 14-18. Japan's remarkable economic and industrial growth has spawned the worst aspects of high-paced industrial development with all forms of accompanying pollution: air, water, solid waste and noise. Demand for pollution control instrumentation alone will be $390 million by 1980 reflecting an annual growth rate of 15 percent. By the end of 1976, the Ministry of International Trade and Industry estimates, the market for all pollution corrective equipment will top $3.27 billion. Pollution technology offers opportunities for advanced U.S.-designed corrective equipment and instrumentation. Mara Yachnin, 202-377-5751.

Hotel and Restaurant Equipment/Franchising U.S.A. Stockholm. March 14-18. Promotion is aimed at Sweden, Norway, Denmark and Finland. In Sweden purchases of hotel/restaurant/institutional feeding equipment totaled $45 million in 1975—half by the public sector, 10 percent by employees' cafeterias and the remainder by hotels and restaurants in the private sector. These sales are expected to increase 9 percent annually over the next several years. The concept of franchising has been in the testing phase in Sweden but now appears to be entering the take-off stage. Jim Price, 202-377-2797.

Pumps, Valves and Compressors Catalog Exhibit. Bombay and New Delhi. March 14-24. India's five-year plan calls for an $18 billion industrial development program ($11.1 billion to public sector, $6.9 billion to private/cooperative sector) to maximize current output and create new capacity in certain target industries, including fertilizer/chemical, petroleum exploration and refining, petrochemicals, electric/nuclear power and industrial process equipment. India imported $35 million worth of PVCs during the fiscal year ending March 31. The U.S. share of this market has consistently run at about 33 percent. India's imports of PVCs are projected to total $143 million through March 31, 1979. 202-377-3973.

Technical Sales Seminar on Textile Machinery. Warsaw, Prague, Budapest. March 26-April 8. The East European countries to be visited by this seminar seek to improve the quality of their export textile products. To achieve this goal, they plan to import machinery, primarily in the finishing and non-woven areas. For further information and participation materials contact Gary Roberson, 202-377-3376.

Educational and Training Aids Exhibition. U.S. Trade Center, Sydney. March 28-April 1. Rating remarkably high as an education-conscious nation, Australia's utilization of multi-media learning materials instead of heavy reliance on printed materials has been one of the major developments in education over the past decade. Such educational reforms have produced an exceptionally good market for U.S. audio-visual equipment, technology, and related training aids. End-users include 4 major sectors, i.e., education, government, institutional, industrial and commercial. The total Australian market for audio-visual equipment is estimated at US$150 million annually, whereas the total market for books, periodicals, and other printed matter exceeds US$136 million annually. Recent trends indicating good sales opportunities for U.S. manufacturers in these product categories together with the success of an Audio-Visual Marketing and Training Aids Exhibition held at the Trade Center in 1972 underline the decision to sponsor the current exhibition. Ronald E. McCowen, 202-377-4957.

Scientific, Medical and Industrial Instruments Catalog Exhibit. Brussels. March 30-April 5. Almost all of Belgium's instrument requirements are imported. The market was $21.2 million in 1975 and has been holding at a 10 percent annual growth rate. U.S. exporters are currently enjoying a 12 percent share. This catalog exhibit will be held in conjunction with "Instrurama '77," an

international fair which will attract large attendance. This exhibit offers great opportunities for exposure and possible sales for U.S. firms. Call 202-377-3973.

U.S. Mining Equipment Specialized Trade Mission. Turkey/Greece. April. Excellent sales opportunities are projected for U.S. manufacturers and suppliers of mining and mining related equipment in Turkey and Greece. Turkey possesses relatively large mineral resources, rich reserves of boron, chrome, magnesite, antimony, barite and meerschaum. It is expected that sales of mining and related equipment will reach a billion dollars in the next 5 years. The Turkish government mining agencies plan to invest $662.4 million by 1980. Recent Greek Government measures to stimulate the sector include establishment of an Institute of Geological and Mineral Research and a banking consortium to promote $1.5 billion in investment in the next five years, most of which will center in the minerals sector. The private sector in Greece will greatly contribute to the demand for mining equipment, with industry planning to invest nearly $500 million in plant facilities and equipment and $50 million in research and exploration. Geoffrey Walser, 202-377-4511.

Agricultural and Food Processing Equipment. Budapest. April 15-20. Hungary relies on exports of agricultural products and processed foods to earn hard currency. AGROMAS EXPO is an opportunity to meet Hungarian buyers and end-users at a specialized commercial exhibition. Mike Frisby, 202-377-5186.

Electronics Industry Production and Test Equipment; Tandem Exhibitions at U.S. Trade Centers in Stockholm, April 18-21; and London, April 26-29. Market research recently conducted in Scandinavia and the United Kingdom has identified opportunities for the sale of U.S. EIPT equipment. The United States is a major supplier to these countries. Call William G. Stepp, 202-377-4602.

Hydraulic, Pneumatic and Advanced Fluid Power Systems, Equipment and Components Exhibition. U.S. Trade Center, Tokyo. April 18-22. A seminar will be included. The Japanese recognize superiority of U.S. production. In 1975 the market for both hydraulic and pneumatic power systems was $519.7 million. The market in Japan for hydraulic power systems will grow 10 percent annually for some time, while annual growth for pneumatic power systems will be somewhat less. Robert Levine, 202-377-4056.

Automotive Maintenance and Servicing Equipment Exhibit. U.S. Trade Center, Taipei. April 18-22. Taiwan is a promising market for manufacturers of hand and power tools, wheel balancing, front end alignment, brake testing and repair, safety testing equipment, spark plugs, polishes and lacquers, cleaning and car washing machines. Andre Williams, 202-377-3137.

Plastics Production Machinery and Equipment Exhibition. U.S. Trade Center, Mexico City. April 18-23. Mexico's plastics industry is expected to register especially rapid growth over the next few years. Consumption of plastics production machinery has been increasing at almost 15 percent annually, to $35.2 million in 1976. Some 85 percent must be supplied by imports, and the U.S. is the major supplier. In a February 1975 exhibition of this equipment, sales results were $1.5 million off-the-floor and almost $11 million projected. A technical seminar will be included. Mary R. Wiening, 202-377-4463.

Scientific and Industrial Laboratory Instruments Exhibition. U.S. Trade Center, Paris. April 19-22. In 1975, the French market for laboratory instruments amounted to $154 million. Most was supplied by imports, of which the United States accounted for 30 percent. Imports from the U.S. are expected to continue providing about one-third of total imports of a market which in 1980 should be about $240 million. Market research shows a good market for chromatographs, mass spectrometers, oscilloscopes, N.M.R. spectrometers and automatic analyzers. Ned Krause, 202-377-5381.

Business U.S.A.—A Business Equipment Exhibition. Hong Kong. April 25-29. Automation of office procedures and a large demand for modern business equipment in Hong Kong will result in yearly market growth of 32 percent between 1976 and 1979. Imports are projected to reach $54 million by 1979, double the level of 1974. A full range of electronic office machines, copying/duplicating equipment, microfilm equipment, electronic banking machines, letter handling/addressing/mailing machines, paper/check/coin-currency handling machines, and dictation equipment is required for all phases of the business community. Joseph Burke, 202-377-5285.

Printing & Graphic Arts Equipment Exhibition & Seminar. U.S. Regional Trade Center, Singapore. April 25-29. Market research indicates that an exhibition to capitalize on U.S. market share growth potential is warranted. The revaluation of German and Japanese currencies has made U.S. equipment even more attractive. U.S. suppliers now have an excellent opportunity to effectively compete with third country sources. J. Lee Barnes, 202-377-3893.

Industrial Process Controls and Instrumentation Exhibit. Caracas. April 25-30. Venezuela, buoyed by oil income, is attempting to establish a modern industrial economy in the shortest possible time. Industrial process controls will be playing a major part in this development. By 1978 at least 90 percent of process control requirements will still be filled by imports and U.S. manufacturers are expected to hold a 64 percent share of the $32 million market; this is equal to a 16 percent annual growth rate over the $15 million imported in 1975. Hans J. Amrhein, 202-377-2332.

Outdoor, Leisure and Recreation Equipment Exhibition and Seminar. U.S. Trade Center, Sydney. May 2-6. The combination of greater leisure time and new levels of affluence has created a surging interest in outdoor recreation in an already sports-minded continent. Dramatic increases in consumption, up 60 percent in the past two years, have pushed annual retail sales of this equipment over the $146 million mark. U.S. suppliers will find a wide range of products with high sales potential. Lars Lofas, 202-377-3646.

Industrial Assembly Equipment Exhibition. U.S. Trade Center, Paris. May 9-12. Market research just completed indicates that France is an excellent market for American industrial assembly equipment. By 1978, the French market for this equipment is projected to grow to $925 million—an increase of 30 percent over the 1975 level of $712 million. Imports, which now constitute 38 percent of the market, are projected to grow to $376 million by 1978. Due to rapidly increasing labor costs, there is currently in France a high degree of interest in increased productivity. These factors, combined with the reputation of U.S. industrial assembly equipment as being highly reliable, solid and practical, make this a must exhibition for growth-oriented American manufacturers. George Ruffner, 202-377-5381.

High Performance Production Materials. U.S. Trade Center, Stockholm. May 9-13. Special promotion to original equipment manufacturers in Sweden, Norway, Denmark and Finland of selected U.S. materials and milled products of these materials; ferroalloys, nonferrous metals, nonferrous metal alloys and plastics. The Swedish market alone in 1974 totaled $2.4 billion, and is expected to expand to $5.7 billion by 1980. Imports supplied 21 percent of the 1974 Swedish market, of which 70 percent was consumed domestically and 30 percent reexported. Of greater interest to U.S. suppliers are export market shares: in 1975 Sweden absorbed 12.9 percent of total U.S. exports of ferrovanadium alloys; 4.5 percent of ferromolybdenum alloys; 12.8 percent of nickel and nickel alloy electroplating anodes; 53.1 percent of molybdenum and molybdenum alloy powders; 9.1 percent of selenium metal; 5.6 percent of wrought cobalt products; 5.0 percent of unwrought tungsten and tungsten waste/scrap; 8.7 percent of synthetic plastic resin laminated tube and rod; and 4.9 percent of synthetic plastic resin metal-clad laminated sheets. William Beiring, 202-377-3276.

Food Processing & Packaging (FPP) and Agricultural Machinery & Equipment (AGME). Novi Sad, Yugoslavia. May 13-22. Yugoslav imports of AGME and FPP are forecast at $95 million and $55 million, respectively, for 1977. Government officials have recently designated self-sufficiency and increased export potential in these industries as a top national priority. A full range of processing, forming, filling, sealing, wrapping and packaging equipment is required in FPP; opportunities for sales of AGME include all varieties of planters, spreaders, dryers, loaders, and large combines, planters and harvesters. Contact Kenneth Nichols, 202-377-2762.

Telecommunications Equipment Exhibition. U.S. Trade Center, London. May 16-20. The U.K. import market for communications equipment reached $176.9 million in 1974 and, after a decline in 1975, is expected to grow by 13 percent annually to more than $308 million by 1980. U.S. exports represented 25 percent of 1974 imports. American-made equipment is sought for its high level of sophistication, technological reputation, and uniqueness. U.S. products expected to be in excellent demand during the next 5 years include fibre-optic components and subsystems, advanced telegraph systems, high-density/high-speed random-access memories, complete CCTV systems, solid state high-power HF microwave components, telephone handsets and data multiplexing systems. Thomas L. Thomas, 202-377-3459.

Hydraulic, Pneumatic and Advanced Fluid Power Systems Equipment and Components Exhibition. U.S. Trade Center, Tokyo. May 16-21. The Japanese market for this equipment is estimated to reach over $800 million by 1980. Over the past three years, in spite of a flagging Japanese economy, imports were increas-

ing with U.S. supplying better than 75 percent. Specific end-user fields where U.S. products command a superior position are nuclear energy, ocean development, pollution control and aerospace development. Call 202-377-4056.

Health Care Industries. U.S. Trade Center, Paris. May 31-June 2. France's development plans call for additional skilled technicians, expanded hospital and clinical facilities and a host of special research programs covering various terminal and incapacitating diseases. Robert B. Wallace, 202-377-3748.

In-Store Promotion. Georges Australia Ltd. Melbourne. June. Will feature U.S. men's, women's and children's wear, accessories, housewares, household linens, cosmetics and stationery. Store contact: Alan M. Forbes, Mng. Dir., Georges Australia Ltd., 162 Collins St., Melbourne. U.S. buying office: Mutual Buying Syndicate, Attn. Camille Galbo, V.P., 11 W. 42 St., New York, N.Y. 10036. Mollie Cleveland, 202-377-4705.

U.S. Pavilion, 32nd Paris Air Show. June 2-12. Internationally long recognized as the key marketplace for the aerospace industry, the biennial Paris Air Show regularly attracts the largest international audience of industry, government and military aerospace buyers. With the total value of U.S. areospace exports for 1976 estimated to exceed $7.6 billion, the aerospace industry continues to be the largest exporter among U.S. manufacturers. In 1975, the 68 exhibitors in the U.S. Pavilion reported $2.84 million in off-the-floor sales and projected an additional $92.8 million in 12-month sales. Beryl D. Cohen, 202-377-4961.

Interhospital '77. Hanover, Germany. June 7-10. Commerce will have a U.S. pavilion in Europe's leading fair for hospital equipment. Nowhere else is such a concentrated opportunity offered to make direct contact with customers and potential purchasers. Interhospital will be divided into nine exhibit sectors: 1) medical techniques; 2) technical treatment equipment; 3) furnishing and equipment; 4) large-scale catering equipment; 5) laundry and chemical cleaning equipment; 6) catering supplies and materials; 7) food; 8) hospital textiles; and 9) services. Contact Robert Wallace, 202-377-3748.

Metals Industry Equipment Exhibit at "TECHNOLOGY-77" International Trade Fair. Tel Aviv. June 8-15. The metalworking industry in Israel is characterized by two factors: rapid growth rate in investments, output and export, and a trend towards more sophistication and diversification. The Israeli market for metalworking and finishing equipment expanded by 92 percent during the 1968-72 period, reaching a total of $66.4 million. In 1975 that market hit $90 million and is expected to exceed $110 million in 1978. Franc D. Manzolillo, 202-377-2991.

U.S. Exhibition at "Electro '77." Moscow. June 9-23. The theme of the U.S. exhibition is electrochemical, electricity producing, transmission, and distribution equipment of all kinds. Equipment for the electrical equipment production industry is needed, including automation equipment, test measurement instruments, and welding equipment. There will be a small section on nuclear and electrotechnical medical equipment. Automated electrical systems for the mining, metallurgy, machine tool, plastics, pulp and paper and agricultural sectors are electrotechnical medical equipment. Autoneeded. Call Judith Robinson or Gary

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

FRANCE—Diversified firm seeks collaboration with U.S. companies interested in manufacturing **industrial goods** in France. Company is involved in materials handling, pollution control, baked clay, and animal feed industries. Is equipped with modern tooling and capable of producing precision work. La Mecanique Moderne, B.P. 103, 62002, Arras. Telephone, 21.00.16; telex, 120952. P-76931.

1611, 1622—SAUDI ARABIA—Large contractor desires joint venture to take on additional **road construction activity.** U.S. partner would provide equipment and project management. Other aspects of agreement are negotiable. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76932. OPIC.

2452—ARGENTINA—Seeks license to manufacture **prefabricated homes.** Interested in producing sections that can be joined either by nailing or with finger joints. Would utilize different types of wood such as redwood, plywood and hardboard. Argentina firm has sawmills, logging operations and forest stands occupying over 14,000 acres. Seeks to expand its activities in view of government's interest in developing low and medium cost housing. Edar Nelson Boiero, Dir., Tague S.A., Talcahuano 638, 5 Piso "D," Buenos Aires. P-76968.

2511, 2514 — ARGENTINA — Company seeks license to manufacture **vibrating beds.** Firm currently is importer of tinplate. A new company would be formed for manufacturing beds. Institutional market potential considered significant in Argentina and neighboring countries. Roberto M. Cequiel, President, Cariware, SACIFIA, Hipolito Yrigoyen 986, Piso 20, 1086 Buenos Aires. P-76933.

2646, 3554—AUSTRALIA—Seeks agency or licensing arrangement for **paper mache products, paper machinery, thermal insulation and softwood flooring.** Company is producer and distributor of home insulation and spiral staircases. Employs 120, reports annual sales of $2.6 million. E. H. Nieman, Mng. Dir., Weathermaster Pty. Ltd., 2 Attenborough St., Dandenong, Victoria 3175. Cable, WEATHERMASTER MELBOURNE; telephone, 03-792-9364. P-76963.

2813—FRANCE—Seeks technology to produce **gases by water electrolysis, especially hydrogen,** through licensing agreement with American firm which holds patent on process. Firm designs and builds complete industrial heating plants for all types of fuels and uses, including generators, marine boilers and pollution control equipment. Employs 435 in France, has foreign subsidiaries and licensees and has annual sales of 800 million francs. M. Marcel Pillard, Egci Pillard, 13 rue Raymond Teissere, B.P. 56, 13268 Marseille Cedex 2. P-76969.

2834, 3693, 3841—AUSTRALIA—Seeks licenses to manufacture and/or distribute **veterinary pharmaceuticals and instruments. Also, drug and therapeutic electronic equipment for horses.** Annual sales potential is $100,000. Established 1893, firm is small distributor of horse care products. R. A. Dallas, Gen. Mgr., Waproo Pty. Ltd., 714 High St., KEW East, Victoria 3102. Cable WAPROO; telephone, 03-85-6817. P-76934.

2834—NIGERIA—Bendel State Government seeks joint venture with U.S. firm to expand **pharmaceutical plant.** American partner could have 40 percent interest in project. J. U. Aire, Commissioner for Industry, Trade & Cooperatives, Secretariat, Benin City, Bendel State. P-76935. OPIC.

2841, 2842, 2851—UNITED KINGDOM—Seeks licenses for confidential manufacture and/or packaging of chemically based products. Products of interest include: **non-household soaps and detergents, polishing preparations, surface active agents, miscellaneous paint products, agricultural chemicals, latex type and solvent type, polyvinyl acetate adhesives.** Established in 1975, firm has 8 employees; annual sales, £50,000. John F. W. Craddick, Mng. Dir., Stour Chemical Ltd., Chilten Works, Great Waldingfield, Sudbury, Suffolk CO10 6XD, England. P-76936.

2842—BELGIUM—Seeks licenses to process, pack and ship **disinfectants used by slaughterhouses, hospitals, swimming pools.** Firm is importer and distributor of raw materials used by chemical and pharmaceutical industries. A. Tanghe, Mgr., A. Tanghe & Co. p.v.b.a., Haifastraat 13, 2030 Antwerp. Telex, 32580; telephone, 031/42 03 34. P-76937.

2842, 2869—BELGIUM—Seeks to manufacture under license **sulfamic acid crystals** to be used in production of chemical specialties. Annual capacity will be 4,000 metric tons. Firm also interested in **custom fabricating all kinds of chemical specialties** for U.S. companies. However, licensor would be responsible for marketing and distribution of product.

With over 1,500 employees and yearly sales exceeding $125 million, firm is involved in marketing, custom formulation and production of detergents, household cleaning aids and waxes, cosmetics, toiletries and various industrial chemical compounds. Has good reputation. Marcel E. Magis, Int'l Operations Mgr., TENSIA, S.A., Ave. des Tilleuls 62, 4000 Liege. Telex, 41368; telephone, 041/52.70.90. P-76938.

3251—NIGERIA—Seeks joint venture arrangement with U.S. company for establishment of **brick manufacturing plant.** This project has been endorsed by State Ministry of Trade, Industries and Cooperatives which is developing sizable clay deposits in State. J. O. Osuntuyi, Mng. Dir. and owner, Arewa Tradewinds, Ltd., P.M.B. 2089, Jos, Plateau State. P-76940. OPIC.

3259—AUSTRALIA—Manufacturer, distributor, exporter and importer of **vitrified clay sewer pipes and fittings,** seeks licensing agreement for manufacture of similar items. Firm manufactures service industry machines and parts, sewage purification equipment, and pumps and pumping equipment. Distributes its products throughout Australia. G. G. Page, Nopol Waste Treatment (Australia) Pty. Ltd., P.O. Box 125, 141 Herald St., Cheltenham, Victoria 3192. P-76971.

3292—BOLIVIA — Seeks joint venture agreement for establishment of **vinyl-asbestos floor tile plant.** Firm also desires equipment to produce PVC tiles at 560 metric tons yearly. Process to be dry blending, where PVC resin is mixed with filters, plasticizers, lubricants and pigments. Compound is processed through extruder and cut into tiles. In addition to equipment, raw materials are required—PVC resin, asbestos, calcium carbonate, plasticizers, lubricants, pigments. Ing. Carlos A. Contreras, Casilla 679, La Paz. P-76970.

3400—BELGIUM—Firm seeks licensing agreement with U.S. firm for manufacture of **precision sheet metal.** Company specializes in shearing, stamping, spot welding. Desires eventually to represent and/or distribute American machinery or machine tools such as automatic punching machines, welding by points machines. Messrs. Jean and Hubert Fraikin, Owner-Mgr., Ets. Gilles Fraikin, SPRL, Rue des Fraisiers 89, B-4410 Vottem (Liege). Telephone, 041/27.19.90; telex, 41858. P-76941.

3431—NIGERIA—Seeks joint venture agreement with U.S. company for establishment of **sanitary ware factory** producing such items as **toilets, sinks, bath tubs.** S. Iyorkar, Permanent Sec., Ministry of Trade & Industry, Makurdi, Benue State. P-76942. OPIC.

3443, 3715—BRAZIL—Distributor of Mercedes Benz trucks, seeks joint venture agreement with U.S. firm to implement **special truck body project such as dumpers, tanks, semi-trailers, coal storage vans and storage bins.** American partner would be required to take 20 percent equity participation which represents investment of approximately $1 million. U.S. partner should be prepared to supply technical assistance and know-how as well as use of patents and trademarks if any. Participation in management is also offered by Brazilian firm. Cauby Notini, Dir., Mercantil Industrias Mecanicas S/A-MECA, Rua Rio de Janeiro, 680—18 andar, 30.000 Belo Horizonte, MG. P-76943. OPIC.

3444—FRANCE—Subsidiary of Swedish firm A. B. Flaktefabricken seeks licensing agreement to manufacture **fume hoods for steelworks (oxygen converter);** capacity 220 metric tons, with secondary ventilation of oxygen converter. Firm presently manufactures ventilating equipment, pollution control systems for industrial gases, etc. Employs 700, reports annual sales of $6 million. Jean Descolas, Mgr., Ventilation Industrielle et Miniere, 28 quai Carnot, 92212 Saint-Cloud. Telex, 27715; telephone, 602-0573. P-76974.

3479—GERMANY—Seeks licensing arrangement for manufacture of **vitreous enamel (frit) and glazing compositions** for application to industrial equipment and plant components, for example, pressure and reaction vessels, tanks and containers (spherical, storage, transport) drivers, heat exchangers, valves and piping. Firm also desires technical assistance. Established 1864, for production of machinery, devices and equipment for use in various industries. In subsequent years, firm developed into large manufacturer of glazed equipment plant components, water distilling equipment, dust removal systems, amphibious river crossing vehicles and equipment. Employs 1,100, operates well developed sales network in West Germany, EEC and EFTA countries. Professor Hans-Peter Wilke, Mgr., Eisenwerke Kaiserslautern Goeppner GmbH, Barbarossa-Strasse 30, D-6750 Kaiserslautern, Postfach 2540. Telephone, 0631-8571; telex, 045810. P-76972.

3500—AUSTRALIA — Seeks distribution or licensing arrangement for **chemical, hydraulic and high presure water pumps; hydraulic hand tools; hydraulic valves; industrial sweepers and hydraulic power packs.** Employs 16; annual sales, $1.3 million. Brendon Hare, Mgr. Dir., R. P. Sewell Pty. Ltd., 1-9 Buckhurst St., South Melbourne, Victoria 3205. P-76944.

3500—AUSTRALIA—Seeks agency representation or license to manufacture **underground ball bearings, gravity conveyor storage systems, overhead conveyors and gravity roller conveyors.** Firm produces and markets ball bearings and roller conveyors; exports to U.K., New Zealand, Singapore, Philippines, South Africa, and Iran. Annual sales, $3.2 million. G. L. Copeland, Mktg. Dir., Anthony Bearings Pty. Ltd., P.O. Box 82. Reservoir, Victoria 3073. P-76945.

3500—GERMANY — Manufacturer and distributor of transformer and condenser cases and oil containers plans to expand its production program. It seeks licenses to make newly developed products in **pollution control field.** Established 1909, employs 57. Sales territory includes Germany, EEC and other European countries. Loos & Co. KG, Bruchstrasse 76, 5912 Hilchenbach. P-76946.

3500—SWITZERLAND—Seeks joint venture or agency agreement with U.S. manufacturers of equipment requiring consulting and application engineering and after sales servicing. Product interests include **agricultural, construction machinery, material handling systems, waste disposal and handling equipment.** Swiss consulting engineering firm could also handle marketing and related activities. Presently specializes in design and production of agricultural and materials handling equipment. Is affiliated with medium sized manufacturer of construction machinery. Ferdinand Steck, Ingenieurbureau, Sonnmatt, 3533 Bowil-Bern. P-76976.

3523—BELGIUM—Manufacturer of mine tractors seeks licenses to make any non-seasonal products related to its present operation. Is interested in **mechanical equipment utilizing small internal combustion engines, as well as wide range of attachments and accessories.** These products would be distributed through firm's established sales network in Europe, Africa and Asia. Employs 68, has marketing, sales and financing division. Plant includes complete machine shop, welding facility, conveyors and electrostatic paint installations. J. P. Landen, Gen. Mgr., AMNOR N.V., Nijverheidsstraat 26, 2431 Oevel. Telephone, 014/58 94 44; telex, 32 818. P-76947.

3535—BELGIUM—Seeks licenses to manufacture **conveyor belt systems with rolls for use in airports & food processing plants and for packaging and loading purposes.** Company currently makes textile fabrics finishing machinery and general mechanical constructions. Exports worldwide, operates well equipped plant, employs 70. Is now seeking to expand its activities. Jean-Pierre Valencon, Mng. Dir., Ateliers RAXHON, S.A., Rue des 600 Franchimontois 1, 4870 Theux. Telex, 49.141 Valrax; telephone, 087/54.14.01. P-76948.

3541, 3542—BELGIUM—Seeks licensing agreement for manufacture of complete line of **machine tools.** Firm manufactures small and medium size milling and punching machines and wide range of mechanical machine tools. Has production line to manufacture mechanical equipment up to two tons. Ernest Rouma, Mng. Dir., Ets. Gardier S.A., 4200 Sclessin, Liege. Telephone, 041/52 01 20. P-76949.

3545—FRANCE—Manufacturer of cutting tools for wood and metal seeks licensing agreement to produce **cutting tools used on spindle molding machines for wood or wood-based materials.** Firm would also consider distributorship agreement. Employs 80 workers and 45 exclusive salesmen. Jean Rene Mortier, Pres. Dir. Gen., Sunsteel S.A., 9 Ave. de la Gloriette, Zone Industrielle, 84001 Avignon. P-76975.

3545, 3622, 3621, 3821, 3824, 3829—GERMANY—Firm seeks licensing agreements for manufacture of: **machine tool controls, including numerical controls; stepping motor controls; electric generators for permanent power supply (4 to 6 volts, 60 amperes); warm water meters with electronic remote indication; oil leak detectors; digital movement indicators for machine tools.** Is medium-sized manufacturer and distributor of electric switches and switching electronic industrial controls, installations, electric transformers, electric motors. Hermann Leukhardt, Mgr., Erwin Leukhardt GmbH & Co., Rudolf-Diesel-Strasse 11, D-7200 Tuttlingen. Telex, 07 62635; telephone, 07461-5031. P-76961. WTDR.

3551, 3559—BELGIUM—Seeks licenses to manufacture **processing machinery, such as slow mixers, used in paint, chemical and food industries.** Firm makes high-speed mixing and dispersion equipment for paint and chemical industries; is now entering into food processing with its mixers. Has 20 employees and plant of 1,000 sq. m. which could be enlarged by additional 3,000 sq. m. It markets throughout Europe, Africa, and Middle East. Keith J. Winterson, Mng. Dir., Morehouse-Cowles International (Belgium), S.A., Parc Industriel, B-4822 Petit-Rechain. Telephone: 087-33-71-07. P-76950.

3564—GERMANY—Seeks licenses to pro-

duee **industrial and fume collecting, air purification and ventilating equipment.** Firm manufactures and distributes in Europe air conditioning systems, industrial filters. Employs 60, enjoys good reputation. Albert Bronold, Georg Bronold KG, Sonnenring 10, D-8300 Altdorf. P-76964.

3567—FRANCE—Seeks to manufacture under license **cold wall, vacuum industrial furnaces, gas burners.** Firm produces industrial furnaces and markets in Franee, Europe, Afriea. Employs 45. Dordonnat, Construction de Materiel Thermique Moderne CMTM, 4-8-10 rue Lasson, 75012 Paris. Telex: 270105. P-76965.

3569—UNITED KINGDOM — Manufacturer, importer, exporter of municipal waste water polution control engineering products is interested in obtaining licensing arrangement from U.S. fabricator of gas recirculation and aerobic sludge digestion systems for **water pollution control works.** Company designs, supplies, installs equipment for sewage and sludge treatment for municipal and private authorities. For industry, it provides design and equipment for treatment of waste waters and sludges. Firm specializes in manufacture of mechanical equipment, such as sedimentation and storm tank equipment in either aluminum alloy or steel, and range of sand and sludge lifting machinery; biological treatment, including fine bubble, diffused air, activated sludge proeess, automatic control systems to monitor dissolved oxygen level; proeess systems such as thermal and chemical conditioning of sludge and carbon regeneration, also incinerator systems. Established 1919. Ken F. Phillips, Sales Exec., Hawker Siddeley Water Engineering Ltd., Molly Millars Lane, Wokingham, Berkshire RG11 2 PY, England. P-76951.

3569—UNITED KINGDOM—Seeks license to manufacture any products compatible with its present range of **electronic packaging equipment.** Firm produces printed circuit wiring boards, eleetronie closures, module raek systems, eard frame systems, instrument cases and racks. Also markets wire wrapping tools. Reports annual sales of $7 million. Represents several U.S. firms, employs about 390. D. E. Hedger, Mng. Dir., Vero Electronics Ltd., Industrial Estate, Chandlers Ford, Eastleigh, Hants SO5 3ZR, England. P-76966.

3576—AUSTRALIA—Seeks licenses to manufacture and market **household, coin operated and commercial scales; also parts for scales and balances.** Firm produces builders and cabinet hardware and scales. Employs 250, has sales offices in capital cities in each Australian State. W. J. Denby, Gen. Mgr., Wells Persin (Vic.) Pty. Ltd., 40 Robbs Road, West Footseray, Victoria 3012. Cable STAMPINGS MELB; telex, AA32878; telephone, 03-314-0711. P-76967.

3581, 3585, 3822—AUSTRALIA—Medium sized ice storage company seeks licensing agreements for manufacture of **automatic temperature controls for ice machines, automatic ice making-machines, and ice-vending machines.** Firm exports to Indonesia and New Zealand. Established 1973. Peter Birrell, Mng. Dir., City Ice & Cold Storage Co. Pty. Ltd., 268 Grant St., South Melbourne, Victoria 3205. Telephone, 03-699-6648. P-76957.

3679—PHILIPPINES—Seeks joint venture to manufacture wide range of **electronic products.** Interests include electronic coils, transformers, resistors and capaeitors; recorders, tuners, related equipment; industrial and military communication equipment; consumer electronic products. President of firm has had training in electronics and communications. Products would be sold on domestic and export market. Ramon Y. Gonzales, Pres., Philippine Overseas Marketing, Inc., Suite 212 Rufino Bldg., Ayala Ave., Makati, Metro Manila. WTDR. P-76952. OPIC.

3693, 3841—GERMANY—Firm seeks licensing arrangements for manufacture of **therapeutic lamps, diagnostic equipment with fiber optics, small electro-therapeutic and diagnostic apparatus, and apparatus for mechanotherapy.** Established 1909, manufaetures residential and office light fixtures and radio earphones. Hans-Dieter Buerk, Mgr., Robert Pfaeffle KG, Villinger Str. 35, D-7220 Schwenningen. Telex, 794 539; telephone, 07720/33031. P-76953.

3731—THAILAND—Medium sized firm seeks joint venture arrangement to produce **fiberglass fishing and patrol boats.** Established 1968, has been awarded several government contracts to build sailboats, patrol boats, fiberglass yachts. Seeks investor to provide about $75,000 capital and technloogy in exchange for 49 percent equity with management participation. Project is aimed at meeting demands of Thai market and entering international eompetition with worldwide boat builders. Angelo Gualtieri, Mng. Dir., Oriental Marine & Laminates Ltd., 25 Soi 64, Sukhumvit Road, Bangkok. P-76973.

3800—GERMANY—Manufacturer of **high precision fine mechanics and electronic units** seeks licensing agreements and possible distribution of similar equipment, especially for **measuring instruments** in various industrial branches, for example, recording and controlling, and photographic darkroom equipment. Skilled labor and tooling machines for punching, turning, grinding, milling, drilling and finishing available. Established 1864. Ehrhart Baeurele, Bus. Mgr., or Josef Snackers, Sales Mgr., T. Baeuerle & Soehne, Bahnhofstr. 64, Postfach 93, D-7742 St. Georgen im Schwarzwald. Telex, 0792417; telephone, 07724/7026. P-76954. WTDR.

3829—UNITED KINGDOM—Firm seeks licensing agreements to manufacture **gas filled instruments—temperature, direct or distance type; electronic instruments, analog/digital readout for temperature, pressure, flow,** etc. Maintains sales agents and representatives in U.K., Europe, Africa, India, Pakistan, Malaysia, Singapore, Canada; has manufacturing and repair facilities in U.K., Netherlands, South Africa, Australia. J. J. Gilbert, Gen. Mgr., British Rototherm Ltd., Margam, Port Talbot, West Glamorgan SA13 2PW, South Wales, England. P-76955.

3873, 3674, 3679—SWITZERLAND—Manufacturer/distributor of de luxe timepieces and special racing timers seeks licenses for manufacture of **modules and parts (circuits) for electronic watches and wrist-chromographs,** especially for timers and stopwatches. Ms. Denise Juhan-Perrin, Pres., Perrin Geneve, 3 Rue De L'Est, 1207 Geneva. P-76956.

3999—BELGIUM—Seeks licensing agreement to manufacture **commercial hairdryers** for beauty and barber shops. Established 1958. Claude Henry, Mng. Dir., Ets. C. Henry, S.A., Rue Lairesse 56, 4020 Liege. Telephone: 041/43.43.85. P-76958.

7372—GERMANY—Computer consultant and software house seeks licensing agreements for **minicomputer programs for commercial and medical applications.** Firm has developed its own medical programs and will also consider cross licensing in that field. Established 1969. Wolfgang E. Ziegenbalg, EDV Beratung, Menzelstr. 24, 6500 Mainz 31. P-76959.

7392, 8911—BELGIUM—Joint venture sought with U.S. **design and planning firm specializing in water treatment.** Firm not interested in manufacture of machinery and equipment. New techniques, designs and plans for water treatment and purification equipment and methods are desired for use in Western Europe. Firm is part of large French industrial group with over 3,500 employees. Additional information from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76960.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-5361), referring to file number.

BELGIUM—Liege eompany is offering for production in U.S. special method of **treatment of waste metal by cryogenic process.** Steel companies using electric furnaces or continuous casting (ladle cooling) system may find process of considerable interest. File 3185.

BELGIUM—Liege firm seeks joint venture and/or manufacturing licensing agreement with U.S. firm for manufacture in U.S. of its **water meters.** Company is also interested in cross licensing. File 3186.

BELGIUM—Benelux's largest upholstered furniture maker wants to sell license on **new system of upholstering** to U.S. manufacturer for fabrication in U.S. Firm will sell license and supply technical know-how. File 3187.

BELGIUM—Liege company is trying to locate U.S. firm to produce its **automatic water softeners** in U.S. under license. May be interested in cross-licensing. File 3188.

FRANCE—Lyon firm is seeking cooperative agreement with U.S. firm interested in its **ball and roller screws** as well as linear roller bearings under trademark, Transrol. File 3189.

GERMANY—Stuttgart manufacturer of **precision measuring and gaging units** is seeking U.S. joint venture partner to produce and distribute its line in U.S. File 3190.

GERMANY—Stuttgart chocolate candy manufacturer has expressed interest in granting license for production of some of its special products in U.S. File 3191.

GERMANY—An old line Frankfurt company is seeking U.S. licensee to produce its line of **polyethylene products** (films,

foils, sheets) and related equipment for use in industrial packaging and materials handling; specifically bags, sacks, tarps, tapes, sheeting, heat shrinking films and covers, transparent and tubular films, white/black, u/v stabilized films, mulch films, knitted sacks, nettings, hoses, wind guards, awnings, screens, and sunshades. File 3192.

GERMANY — Duesseldorf manufacturer of **nestable compartmentalized trays** of thin plastic sheet material with cup-shaped depressions for nesting confectionery and biscuits in cardboard and packaging machinery is seeking U.S. partner interested in producing these trays in U.S. Items are covered by U.S. Patent Nos. 3,884,381 (trays) and 3,907,161 (apparatus for denesting stacked packaging trays). File 3193.

GERMANY—Duesseldorf major producer of **metal gratings** for industrial use wants to have its line made in U.S. by U.S. company under license or joint venture arrangement. Is also interested in complementing its gratings line with similar U.S. products such as expanded metal sheets and welded gratings either through direct purchases from U.S. manufacturer or through its own production under U.S. license. File 3194.

SPAIN—Madrid company is offering to U.S. companies for use in U.S. its **patented techniques relative to electromechanical equipment** (relays) as well as **sophisticated electronic systems** in automation and data processing. File 3195.

SWITZERLAND—Geneva producer of **modules and parts** (circuits) for electronic watches and wrist-chronographs especially for timers and stopwatches is seeking U.S. manufacturer to produce its line in U.S. under license. File 3196.

SWITZERLAND—A leading Swiss manufacturer of communications and telephone equipment offers its line for manufacture in U.S. under license—new **solid-state (fully electronic) PABX telephone exchange**. File 3197.

UNITED KINGDOM—Staffordshire manufacturer of **fiberglass power boats** wants U.S. manufacturer to produce its Fletcher line in U.S. File 3199.

Korea Seeks Participants In Industrial Complex

Korean development of a major industrial complex at Changwon continues to expand. Plans call for establishment of over 100 manufacturing facilities by 1981. These would involve production of a number of products in the machine industry including castings, pipe and transportation, precision and electrical machinery. Presently, 13 plants are operational with 22 more under construction.

Changwon is about 250 miles southeast of Seoul in a growing industrial belt. The complex is connected to Seoul by rail and a new four-lane expressway. Eventually the complex will include housing for 300,000 workers and their families and have an independent water and power supply. The surrounding area has an abundant supply of manpower.

The Changwon Development Corporation welcomes inquiries from U.S. machine tool and machinery manufacturers interested in establishing production facilities in the complex. For further details write: Jong Myong Choi, Chairman, Changwon Industrial Complex Development Corporation, 7th Floor, Kyong Gi Bldg., 115, Samgak Dong, Chung Ku, Seoul P-76962

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by five-digit numbers and commodity classifications. These have been adapted from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Department's Export Administration Regulations. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Highway & street construction

• **161XXXX—NIGERIA** — Gongola State Government invites tenders from contractors registered in Category "F" and above with former North Eastern or Benue-Plateau States with Federal Works Registration Board for construction of a 35km road between Jada and Kojili and a 48km road from Jada to Dimbiwere to Ganye. Requirements call for two-lane non-bituminous surface. Tender documents can be obtained from Permanent Secretary, Ministry of Works, Civil Engineering Division, Yola, upon production of receipt for 400 Naira paid to any subtreasury in Gongola State; and must be submitted by Dec. 15 to Secretary, Gongola State Tenders Board, Ministry of Finance and Economic Planning, Yola.

Wood products

• **2491XXX—ALGERIA**—State Wood and Wood Products Marketing Monopoly of Algeria invites bids for the supply of wood and wood products for use in 1977. Tender and specifications should be obtained from Direction Generale, Sonacob 2, Mohamed V, Algiers, Cable: COBALGER; Telex: 52508. Tender offers should be sent to the above address and include 1) f.o.b., c. and f., and c.i.f. price; 2) delivery dates; 3) payment terms; and 4) available quantities. Offers (required for each item) should remain valid 3 months after receipt of offer. All offers and correspondence in French. No bid deadline.

Drugs

• **2833XXX—INDIA**—Indian Drugs and Pharmaceuticals Ltd. requires 1,346.45 metric tons of medicinal chemicals for manufacture of drugs. Included are 500 M/T guanidine nitrate, 468 M/T dicyandiamide, 80 M/T acetyle acetone, 77 M/T acrylonitrile, 56 M/T aminothiazali, and 30 M/T acetonitrile. Contact U.S. Department of Commerce, Room 2104, Washington, D.C. 20230; 202-377-2239.

Glass products

323XXXX, 326XXXX — GERMANY — Pressed and blown glass: table, kitchen, art, and novelty glassware. Glass products: table, kitchen, art and novelty glassware. Vitreous china food utensils: household tableware & kitchenware. Fine earthenware food utensils: household tableware and kitchenware. China and porcelain, especially tea services. Earthenware and stoneware, including stoneware table and kitchen articles. Est. aggregate annual sales potential $120,000. Firm founded in 1960. Leading regional distr. of glass and ceramic housewares and gift articles. Employs 25. Annual sales DM 6 million. Good financial reputation. Reply to: Heinz Posiwio, Fachgrosshandel, Handelshof 14, 2805 Stuhr-Seckenhaussen. Tel. 0421-890304.

Steel mill products

• **331XXXX — AFGHANISTAN** — Well screens and casings for about 20 wells about 60 meters deep. Tender No. 11; bid deadline not indicated. Central Authority for Water Supply & Sewerage, Nadir Shah Mina, Kabul. Tender documents available from above address at 5,000 Afghanis (about $110) or from Proctor and Redfern International Ltd., 75 Eglinton Avenue East, Toronto, Canada.

• **331XXXX—BURMA** — 45 Lt of equal angle iron in various sizes, and 50 Lt of channel iron in various sizes. Tender No. T14; bid deadline Jan. 10. Electric Power Corp., Central Stores Department, Rose Bank Road, Rangoon. Tender documents available from U.S. Embassy, Rangoon, at $2.

Rolling, drawing, extruding of nonferrous metals

3354XX—TANZANIA — Private plantation, Brook Bond Liebig, Box 40, Mufindi, wishes to purchase chippers, barkers or similar equipment suitable for shredding eucalyptus into chips. Chips are to be used in boiler used to generate electricity

at tea plantation. In addition, plantation wishes to purchase machinery capable of igniting pine sawdust into flammable material which can then be fed into boiler. Firm would appreciate receiving descriptive materials from U.S. suppliers at above address.

Special industrial machinery

35500—HONDURAS—National Agrarian Institute (INA) plans to purchase complete equipment and machinery for two African palm oilseed processing plants. Plants, to be installed at INA's Tocoa project, Dept. of Colon, will cost approx. U.S.$3 million. Capacity of each 21 tons/hr. Purchase financed by Interamerican Development Bank and Central American Bank for Economic Integration. Tenders should be announced in two/three months. U.S. suppliers contact: Instituto Nacional Agrario, Calle Principal, Colonia Alameda, Tegucigalpa, D.C.

General industrial machinery

• **35600—PARAGUAY** — Supply and supervision of installation of pumps for new potable water systems in nine localities of interior, as follows: centrifugal pumps, horizontal shaft; turbine pumps, verticular shaft, oil lubrication; turbine pumps, vertical shaft, water lubrication; and electrohydraulically operated butterfly valves. Tender No. 11/76; bid deadline Jan. 11. Secretaria General, Corporacion Obras Sanitarias-Corposana, Calle Jose Berges 516, Asuncion. Specifications available from above address for $40 per set. Bids should be submitted through local agent.

• **3569961 — BOLIVIA** — Provision and financing of airport fire equipment for airports of La Paz, Santa Cruz, Cochabamba, and Trinidad. Bid deadline Jan. 3. Tender issued by Ministry of Transportation, Communications, and Civil Aeronautics. Bid specifications may be obtained for U.S.$25 from Administracion de Aeropuertos y Servicios Auxiliares a la Navegacion Aerea (AASANA), Casilla 4382, La Paz. Ref: Propuesta Internacional 8-76.

Communications equipment

• **36621XX—COLOMBIA** — Division de Suministros, Empresa Nacional de Telecomunicaciones, TELCOM, Calle 23, No. 13-49, Piso 7, Bogota, has issued tender No. 116/76 for supply of radiotelephone and multiplex equipment and metal towers for radio communications equipment. Bids must be submitted through registered local agents. Copy of specifications available from above address for 3,500 pesos (US$100) for first copy and 1,000 pesos (US$28) each additional.

• **36621XX — COLOMBIA** — Division de Suministros, Empresa Nacional de Telecomunicaciones, TELCOM, Calle 23, No. 13-49, Piso 7, Bogota, has issued tender No. 126/76 for supply of UHF radio communications equipment, multiplex equipment, telephone carrier equipment. Bid deadline Jan. 31. A U.S. firm must be represented by an authorized agent duly registered with TELCOM's suppliers' register. Copy of specifications available from above address at 10,000 pesos (US$281) for first copy and 2,000 pesos (US$56) for each additional copy.

Engineering, laboratory, scientific, research instruments

• **3811XXX — MALAYSIA** — Malaysian Meteorological Services, Jalan Sultan, Petaling Jaya, Selangor, has issued tender for supply of radiosonders and high sounding balloons. Bid deadline Jan. 6. Copy of specifications available from above address.

Instruments for measurement, analysis and control

• **38251XX — BAHRAIN** — Distribution Manager, Electricity Directorate, P.O. Box 2, Manama, has issued tender for supply of 3,000 house service pattern, 230 volt, 30 HZ, single-phase, two wire kilowatt-hour meters, with British Standards bottom terminal connectors and standard terminal covers. Also 2,000 meters similar to above, but polyphase, suitable for operation on three-phase, four-wire 230/400 volt, 50 HZ system. Bid deadline Jan. 2. Copy of specifications available from above address.

Surgical, medical instruments

• **3841XXX—ECUADOR** — Secretaria del Comite de Licitaciones del Ministerio, Ministerio de Salud Publica, Juan Larrea 444, Quito, has issued tender No. 7-76 MSP for supply of equipment to furnish new hospital in Bahia de Caraguez. Bid deadline Jan. 3. Documents must be picked up, in person, at above address. Patented bidder must have Ecuadorean agent who is citizen or legal resident.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Photographic equipment, supplies

• **38610—ALGERIA**—Direction de l'Administration Generale, Ministere de l'Information at de la Culture, 119, Rue Didouche Mourad, Algiers, has issued tender No. 379-E for supply of four separate color TV and motion picture production units, with accessories. Bid deadline Dec. 31. Correspondence in French, specifications must be in metric units. Copy of specifications available from Direction des Services Techniques at de l'Equipment, 21 Blvd. des Martyrs, Algiers.

Visiting Buyers & Officials

AUSTRALIA—H. S. Sife, Dir., Princeton Ladies Wear, Sydney, will visit New York Dec. 6-11 to purchase **printed and plain knitted and woven fabrics for ladies wear** and to view the latest styles. He knows trade but seeks additional suppliers. Contact Bill Corfitzen, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068.

AUSTRALIA—John Uren, Mng. Dir., Precision Paper Coatings Ltd., Sydney, will be visiting the United States Dec. 1-24 to purchase U.S. **machinery to produce finished tape products and tape backings.** He is particularly interested in discussing a new hot melt coating technique with a view to exploring its use in Australia. Buyer also seeks saturated paper and materials for the manufacture of pressure sensitive adhesive tape. For additional information contact Bill Corfitzen, 202-377-2068.

URUGUAY—A representative of the Federation of Rural Agricultural Cooperatives (CALFORU) is visiting the United States for one month to study and purchase American **cold storage systems and equipment, and fruit and citrus package systems and machinery.** Dr. Alberto Saenz de Zumaran, Manager of CALFORU's Fruit Export Department, arrived Los Angeles Nov. 20, and plans to visit California, Washington State, Washington, D.C., Georgia and Florida. Contact Bill Corfitzen, 202-377-2068.

Brazil's Bahia State Offers Investment Incentives

The Brazilian State of Bahia, one of the more dynamic economic growth centers in the country for the past decade, is continuing its efforts to attract additional foreign investments. To help make investments viable, the government has developed a series of major infrastructure projects, and it offers fiscal incentives.

Following are 11 areas in which investment opportunities exist: chemicals and petrochemicals, metal mechanics, mining and metallurgy, construction materials, tourism, small and medium-size enterprises, services, urban infrastructure, micro-enterprises, farming and cattle raising, and agro-industry.

Additional details are available from the Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76930.

Future Construction Abroad

NICARAGUA—Banco Nacional De Nicaragua, an autonomous government institute, is interested in acquiring between 75 and 100 complete **irrigation systems**, for installation on large private farms in the Leon Area. Each system will include 80-150 horsepower electric motor, pump with 1,100 to 3,000 gals. per-minute capacity, related electrical equipment such as transformers and power cables, aluminum tubing, and numerous valves, sprinklers, joints, etc. Each system should be capable of irrigating about 200 acres with a net 6 in. of water per month. Local firms will perform drilling work. Banco Nacional would prefer to contract with a single firm which could supply and install entire systems, but work could conceivably be split between two U.S. firms, one supplying electrical equipment and the other irrigation equipment. Total cost of systems could exceed US$10 million. Additional irrigation projects are being planned, and near-future sales of irrigation systems could double or triple the immediate purchase of 75 to 100 systems. Interested U.S. firms should contact Ing. Edmundo Astorga C., JEFE, Div. De Riego, Banco Nacional De Nicaragua, Apartado Postal 328, Managua; Telex: 1035; Cable: Bananicar; Tel: 27451/59, as soon as possible, providing information on products and capabilities. Given urgency and size of potential sales, a personal visit by representatives of U.S. firms might be appropriate. Banco Nacional hopes to make purchasing decision within next month. OPIC.

THAILAND—Government Pharmaceutical Organization, a state-owned enterprise, submitted its plan to government for establishment of **plant to produce tetra cycline**. Plant requires investment of $5.5 million to be funded entirely by government and will produce tetra cycline at capacity of 100 metric tons per annum, amount sufficiently large to meet local demand and produce some surplus for exports. Interested U.S. suppliers of machinery may send catalogs to: Charoen Chittasombat, Dir., Government Pharmaceutical Organization, Rama 6 Rd., Opp. Ramathibodi Hospital, Bangkok. OPIC.

MALAYSIA—A report from the American Embassy in Kuala Lumpur giving status of **World Bank-financed projects** in Malaysia is available from U.S. Department of Commerce, TOP, Rm. 2321, Wash., D.C. 20230; 202-377-2251. OPIC.

ARGENTINA—Direccion Nacional De Combustibles will hold international bid contests for **petroleum exploration** of five offshore and two onshore areas in Tierra Del Futoon and four onshore areas in northwestern provinces of Salta and Formosa, covering 12,000 sq. kilometers. Bid specifications will be issued Dec. 13, and may be purchased at Direccion Nacional De Combustibles, Secretaria De Estado De Energia, Av. Julio A Roca 651, Piso 7, 1067 Buenos Aires. Tentative time schedule is: Dec. 13, specifications available; about March 15, bids submitted and opened; about April 30, begin contract negotiations with firm(s) selected.

The Overseas Private Investment Corp. (OPIC) offers political risk insurance on assets and bank guaranties to U.S. construction and service firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's contract insurance programs, write Construction Insurance Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-7825.

INDIA—Rail India Technical and Economic Services Ltd., a government-owned consulting organization, is interested in corresponding with firms capable of supply and creation of a **coal loading plant** with capacity of 4,000 tons per hour for a "Merry-go-round" railway system. T. N. Tandon, Senior Manager, Rail India Technical and Economic Services Ltd., New Delhi House (First Floor), 27 Barakhamba Road, New Delhi.

MOROCCO—Government is putting up for international call for bids in February a **tourist residential complex** near city of Agadir, to be financed by $21 million IBRD loan. Contracts will include construction/installation of water system, electricity and other infrastructure projects for residential/tourist complex for 30,000 inhabitants. Robert Atcheson/Peter Zantal, 202-377-4441, CAGNE, U.S. Dept. of Commerce, Wash., D.C. 20230.

SAUDI ARABIA—Government Ministry of Health has published the first in a series of eight international tenders for its **hospital expansion program**. First is for construction of 3 general hospitals (200 beds each) and a health institute in Eastern Province. Second tender is expected in early 1977 and will include a 100-bed specialist hospital, 2 more general hospitals (300 beds and 400 beds), a 300-bed mental hospital, and another health institute. Separate tenders are expected for construction of several medical equipment warehouses throughout the Kingdom. The tenders can be purchased only by those firms which have prequalified. Firms wishing to prequalify should write to: Mansour Ghoshian, Dir., Central Coordination Unit, Ministry of Health, Riyadh. Please send copies of correspondence to: Ms. Cherie Loustaunau, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-4441.

SAUDI ARABIA—Petromin has awarded a contract for construction of **kerosene and gasoline tank farms** at Tabuk and al-Jawf to South Korean company, Chin Hueng International. Largest farm (at Tabuk) will have 6 tanks, 2 each for hi-test and regular gasoline and kerosene. Contract includes construction and equipping of filling stations, power generators, and water station. Interested suppliers should contact: Chin Hueng Enterprise Co., CPO Box 2553, Seoul.

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FORMERLY COMMERCE TODAY

U.S. Department of Commerce / December 20, 1976

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TRADE SHOWS

U.S. PRODUCTS CAN SELL AT HUNDREDS OF EXHIBITIONS AROUND THE WORLD IN 1977

Newsmemo

The hotel/motel industry stopped a long-term slide in 1976. Room occupancy, which had fallen to the break-even level of 60 percent in 1975, is expected to reach 65 percent this year (the industry considers 70 percent a strong level). Business travel, traditionally the major source of lodging income, had fallen to a low point in 1975, but is showing a steady increase. Meanwhile pleasure travelers are indicating acceptance of higher touring costs. Pleasure travel's unexpected strength has displaced business activity as the major source of lodging income. Its continued strength could contribute to higher occupancies.

Sales of computer services and computer software are being eyed by state tax authorities. Computer software programs are considered intangible personal property and are not taxed, according to present interpretation of federal tax law. Some states —Texas, Missouri, Tennessee—concur with this interpretation. California and Ohio, however, consider software programs and services taxable. New York recently changed its view, to hold software as taxable tangible personal property. Keypunching is also considered taxable. Users and vendors are both affected. The user is responsible for tax payment and the vendor for collection.

Regulations aimed at curbing throwaway beverage containers are beginning to get voter approval. Until last month, the results in 8 referenda had been unanimously against such regulations. But in November the voters of Maine, by 58-42, and Michigan, 64-36, OKed measures requiring (in 1978) deposits on all glass and metal beverage containers and banning pull-tab cans. Similar proposals lost in Colorado, 67-33, and in Massachusetts, 50.4-49.6. Presently six states have approved bills designed to reduce beverage litter, and two of these—Oregon and Vermont—have implemented deposit laws.

The dramatic increase in medical malpractice suits and judgments is being countered by state legislation. Florida, for one, has taken this action: all insurance firms must make available, at stipulated premiums, malpractice insurance for physicians and hospitals; recoveries above insured amounts are to be paid out of a new fund derived from physician contributions; there is a rigid two-year statute of limitations; patients are prohibited from stating the amount of damages sought, and a mediation panel must hear all malpractice claims prior to lawsuits.

The fight against deadly frosts in Florida may be carried on at 22,250 miles above the earth. Commerce's National Oceanic and Atmospheric Administration has been taking infrared pictures of ground heat levels from its environmental satellites. On cold winter nights it has tracked the frost line with speed and accuracy. Heating the orchards in Florida can cost growers as much as $5,000,000 per night. Improved temperature information, leading to more precise heating decisions, can result in great savings to growers and also conserve energy.

Must a company state its adherence to ethical standards explicitly? In the wake of the revelations of recent months, yes, believes corporate executive Fred T. Allen: "In Pitney Bowes we had operated on the basis that there was no question but that we would be ethical in our dealings with everyone. I feel we were right in having thought so, and that, overall, our employees knew what was expected of them. . . . Now, however, I feel that our employees need some reassurance, and that a formal code of business conduct is necessary."

Public attention riveted on the wrongdoings of businessmen can serve a useful purpose. Discussion can stimulate change. Allen tells fellow executives: "We must not let this moment, this opportunity pass away. We must be sure that the agony of the revelations leads to a fundamental improvement in corporate ethics. We must be sure that this is not just another wave in the cycle of concern for corporate conduct. We must examine the trauma, and we must discuss its causes and its effects if we are to learn from it."

COMMERCE AMERICA
FORMERLY COMMERCE TODAY

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COVER: The listing of international trade exhibitions in 60 countries that begins on page 22 is an annual feature of *Commerce America*. From thousands of such exhibitions held each year, U.S. Commercial Officers stationed around the world and Commerce Department international trade specialists have chosen those considered to be of prime interest to American companies.

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ECONOMIC HIGHLIGHTS

Ripples In Birth Rate Cause Waves In Future Decades

This column was prepared by John W. Kendrick, Commerce Chief Economist, in collaboration with staff economist Thomas W. Kraseman.

John W. Kendrick

The rate of growth, age composition, and marital status of the U.S. population have fluctuated sharply over the past 30 years, with consequences that will be visible in the economy for the next 50 years. These changes basically reflected marked shifts in attitudes toward family, children, and women's role in society.

Although many observers in the 1950s believed that the sharp changes then occurring were fundamental, it now appears that they were only temporary deviations in long-established trends. The birth rate has fallen back to a historic low, resuming the steady downward trend in progress from the beginning of our Nation until the mid-1930s. The long struggle for equal treatment of women, which began well before the Civil War, has been resumed; it was largely forgotten for most of the first two decades after World War II, when home, family, and children seemed the ultimate dream of most young girls. Although the participation of women in the labor force was rising in this period, the growth was very largely among older women with diminishing responsibilities at home. The divorce rate reached a new peak, half as high as the marriage rate.

[*Editor's Note: The economic impact over the next decade of increasing participation of women in the labor force was discussed in this space Dec. 6.*]

The most visible barometer of these sharp changes in social attitudes is the birth rate, shown in the top panel of the charts. This rate had fallen by nearly half during the 19th century, largely reflecting the shift from an agricultural to an industrial economy. From 1900 to 1935 it fell by almost half again. Although the depression of the 1930s no doubt contributed to the drop at that time, the rate of decline in the prosperous late 1920s was as sharp as that in the depressed early 1930s, suggesting the importance of the changing mores in that period.

In the late 1930s, however, the rate began to rise, despite continuing high unemployment. After the demobilization following World War II, it shot up to the highest level since the early 1920s, and remained relatively high through the 1950s. It started turning downward late in the decade, and the drop became especially sharp in the early 1970s. By then the rate was below the level necessary to maintain a stable population in the long run. Since 1972, the decline has been gradual, despite a sharp increase in the proportion of young people in the most fertile ages.

The rate of population growth also depends on the death rate, but it was virtually stable from the early 1950s to the early 1970s, as shown in panel one. In the past three years, a slight decline has occurred, with the effect of increasing population growth by about 100,000 annually. This is miniscule, however, compared with the impact of changing birth rates.

The sharp changes in the birth rate over the past 30 years have created a prominent population wave that will be moving through successive age groups for the next 50 years. This wave has already produced a rapidly shifting pattern of demand for goods and services as the postwar babies were growing up. Initially, of course, the hospital obstetrics facilities were swamped; next came the sudden shortage of teachers and elementary schools, and then a strain on college facilities. Demand burgeoned for everything that teenagers buy and use, from hamburgers and pizzas to rock records and performing groups.

Immediately in the future, as the front of the wave passes age 30, there is likely to be a sharp increase in demand for single-family homes and their furnishings. Since births reached their peak in 1957, the crest of the wave will pass age 20 next year. From now on demands from teenagers will be waning although the decline will be gradual for several years. Another effect is likely to be a lessening in crime since a large proportion of crime is committed by the young.

Census Bureau population projections are based on three alternative levels of fertility—high, medium, and low—within a realistic range. In six of the seven projections issued in the past 20 years, the population in 1975 was most accurately predicted by the *lowest* fertility assumptions. Since the birth rate is still declining, although it had been expected to rise, the low-fertility projection again seems the optimal choice, and it has been used in constructing panels two and three of the charts.

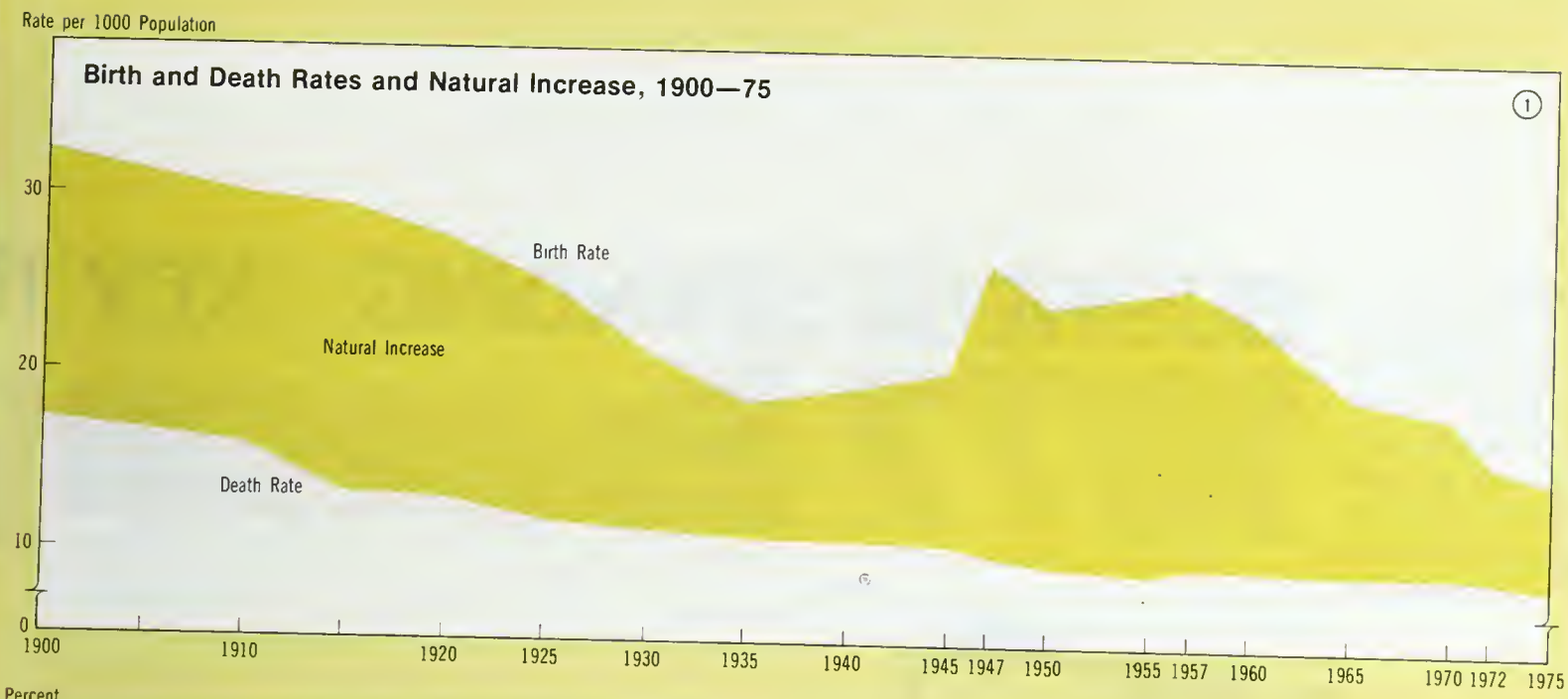
The sharp changes in the age composition of the population since 1940 and projected to 2025 are shown in panel three. In the 1960s, the population in the most productive ages, taken here as 21 through 62, was actually less than the population under 21 and over 62, who are more or less dependent on others for their support.

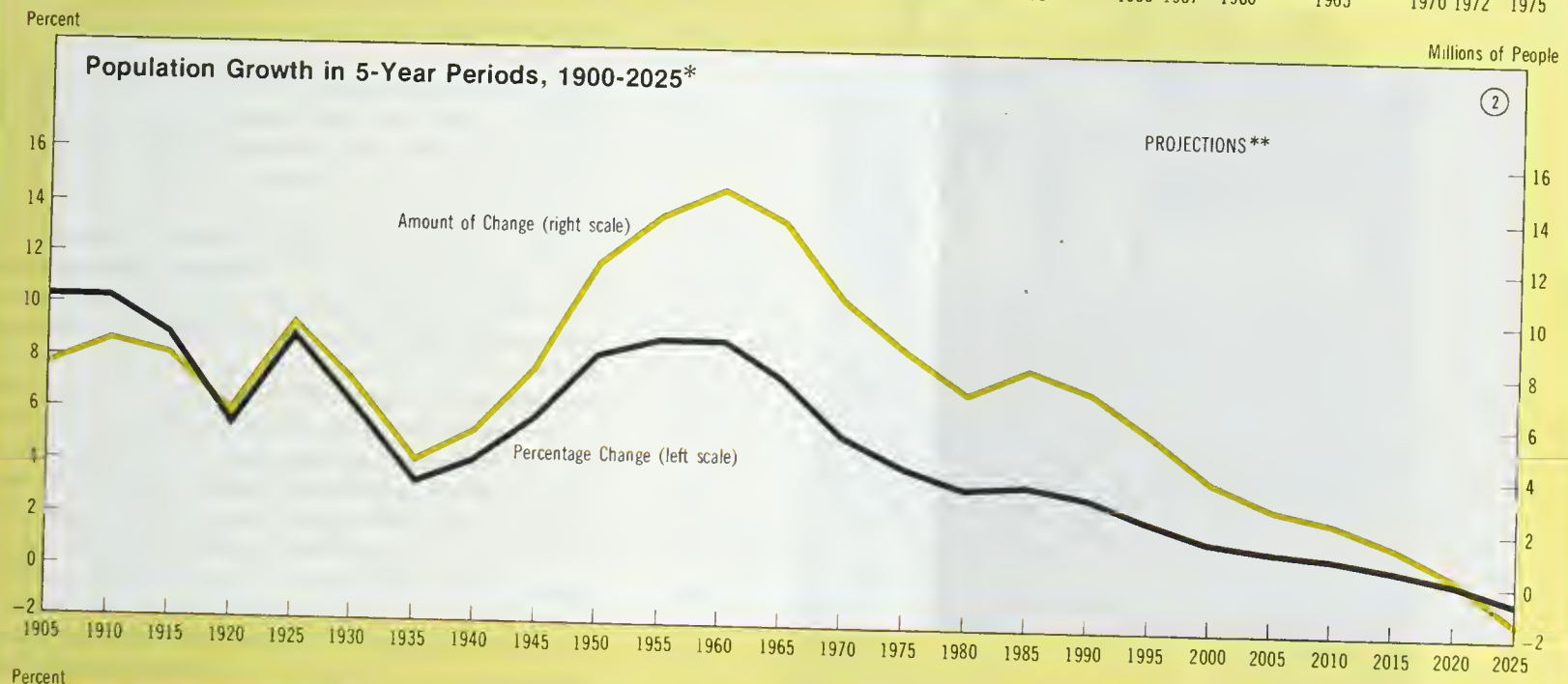
With the declining birth rate, however, the percentage of population 21 to 62 is now rising, and is expected to reach a peak about 2005, when it will account for about 58 percent of the total. Since fewer inexperienced young workers will be taking jobs, the work force on the average will become more productive. Also, teenage unemployment should become easier to deal with.

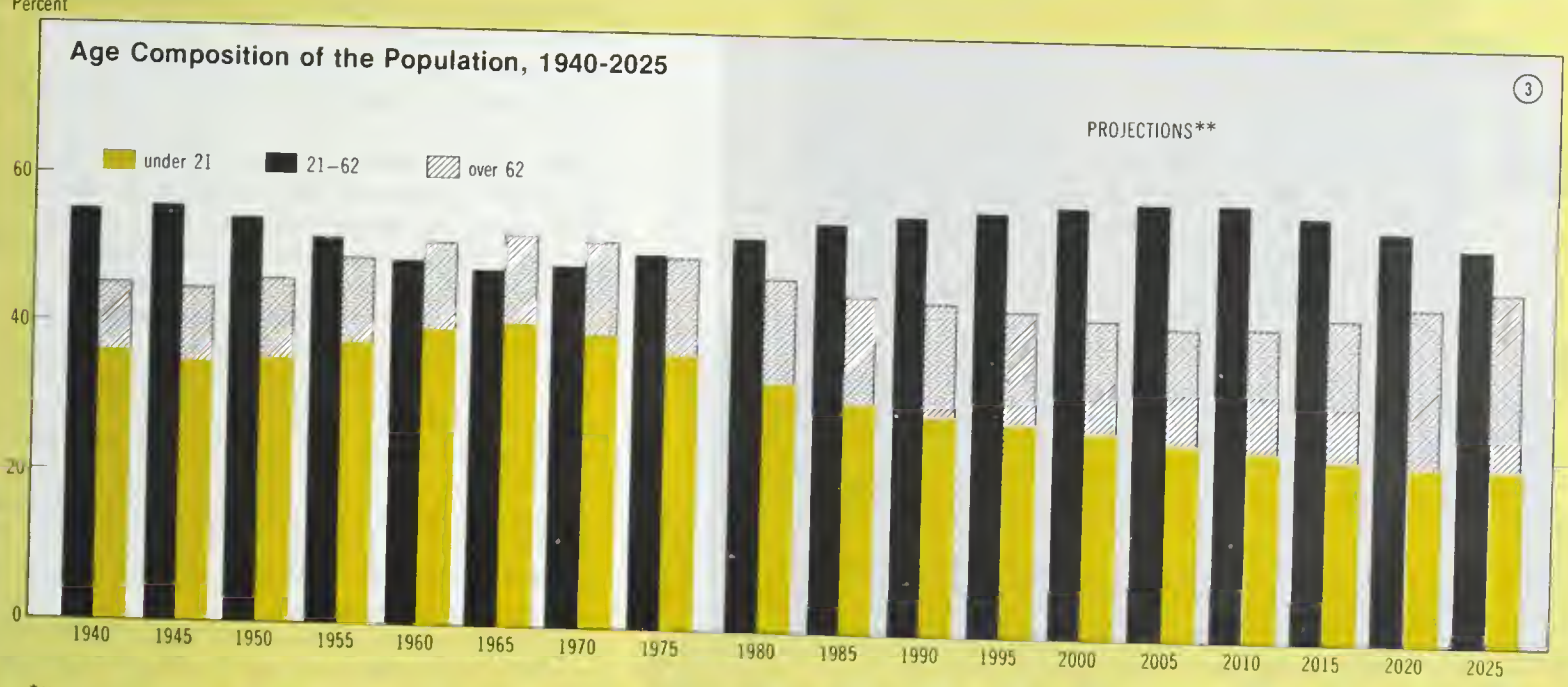
The increase in the average age of the population as it approaches the point of zero growth over the next 50 years will have marked effects. The average tastes of the public will become increasingly conservative, both in the choice of items to buy and in the styles of items.

As the population crest passes out of the younger, heavy-spending years, the saving rate is likely to go up. When the population wave begins to reach retirement age, about the year 2010, another sudden and sharp change is in prospect. Within the space of 15 years, the population over 62 will increase by 17 million, or 40 percent, while the population age 21 to 62 will be dropping by 13 million. By the year 2025, nearly one-quarter of the 250 million population expected at that time will be over 62—about the same as the proportion under 21.

The problems we will face at that time, however, are in a sense the mirror image of those of the late 1950s and 1960s. At that time, the population of working age was supporting a very large number of dependent youngsters; 50 years from now it will be trying to support an unusually high proportion of oldsters. However, in 2025 the population of age 21-62 will still be 53 percent of the total, compared with only 48 percent in 1965. Thus, while substantial adjustments will be required, the problem should not be too large to deal with.



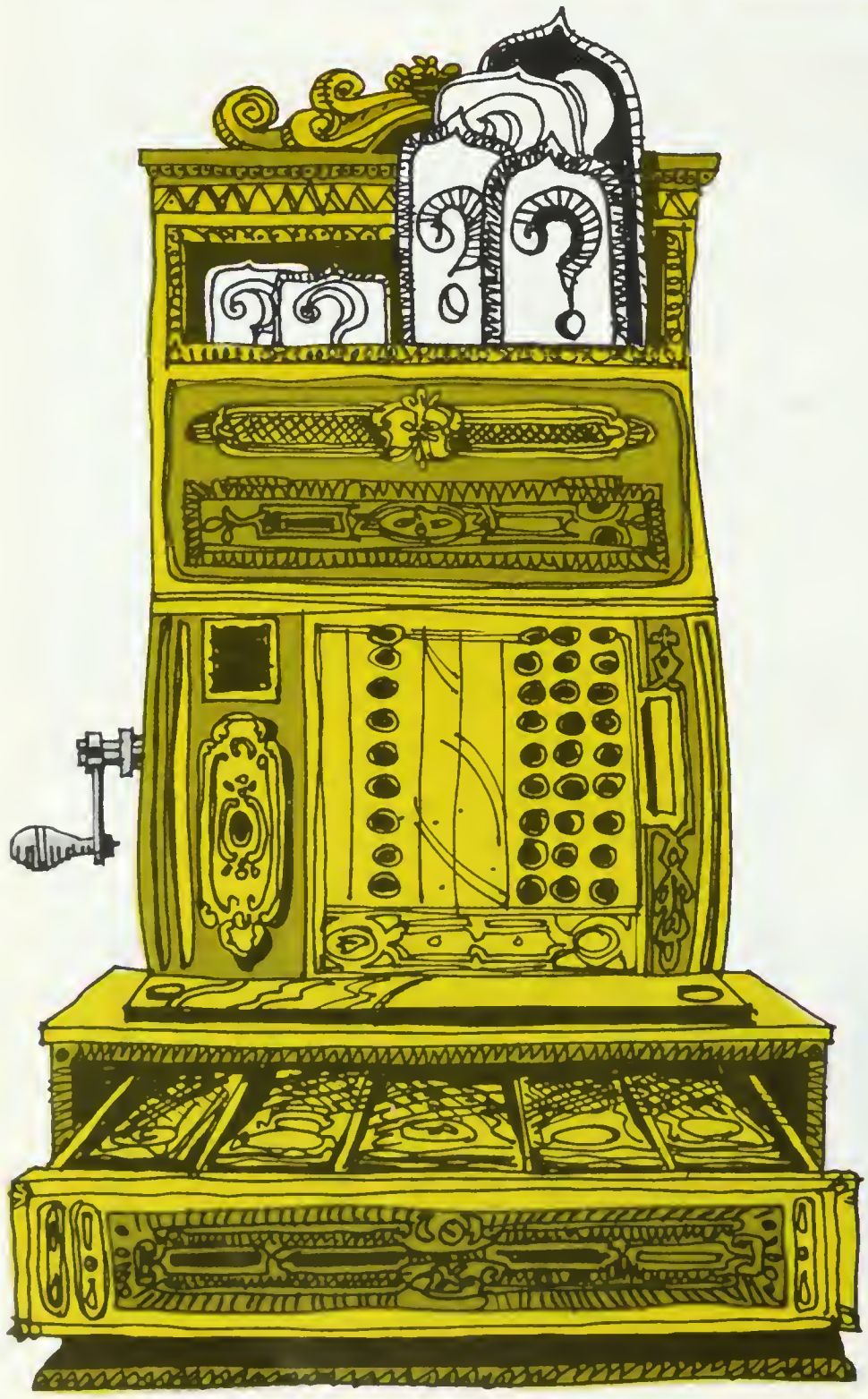




*Natural increase plus net immigration.

**Projections based on Series III (low fertility) in Census publication P-25, no. 601, issued October 1975

BUSINESS SPENDING – KEY TO 1977 Economy



After adding up the likely economic pluses and minuses for the coming year, Commerce's chief economist has concluded that the U.S. will not slip back into recession, but will score a modest advance.

In a recent talk to the Houston Chapter of the National Association of Business Economists, Dr. John W. Kendrick reviewed the facts and assumptions which led him to his cautiously optimistic prediction.

Although the pace of the present recovery slightly exceeded the average of the past four recoveries in its first year, it has since fallen somewhat behind. If 1959 is omitted because of the adverse effect of the steel strike, the average gains in the fifth and sixth quarters of early recoveries were 6.3 percent and 5.0 percent, respectively, while the rises in the corresponding quarters this time were 4.5 and 3.8 percent. Kendrick says the present sluggishness in the recovery is especially disturbing in view of the greater severity of the 1974-75 recession, which was the worst since 1938.

The question has been raised whether the present slack is simply a pause in the recovery, or something more ominous. It is well to recall, Kendrick said, that in early 1960, after two years of recovery, the economy began to slide into a new recession. He said most economists feel the odds are against a repetition of that experience.

A partial explanation of the present growth is the rapid change in the government's fiscal posture. The full-employment budget indicates what the federal surplus or deficit would be if the economy were operating at full employment, and provides a measure of federal stimulus or restraint. As conceived last January, the budget program called for a moderate deficit in the first half of 1976, an approximate balance in the second half, and a moderate surplus in calendar 1977. But actual expenditures were lower than anticipated in the first nine months of this year and the move toward restraint came somewhat earlier than planned.

In the fiscal year that began October 1, the total

impact is expected to be approximately neutral, provided that federal spending is at the $413 billion rate budgeted by Congress. Another shortfall in spending would put fiscal policy in a somewhat restrictive position unless the new Administration decides on some offsetting action such as a tax rebate or additional spending.

State and local governments were also putting on the fiscal brakes this year; their expenditures had risen by almost $7 billion per quarter in 1975, but slowed to $4 billion per quarter in the first half of this year. These slackening expenditures show up dramatically in the employment figures. Throughout the postwar period, state and local governments were a major source of jobs for the expanding labor force, with an average increase in employment from 1960 to 1975 of 400,000 annually. But, reflecting severe financial problems of some major cities, the employment growth almost stopped after April this year.

To some degree, of course, this shutoff in fiscal stimulus was deliberate, Kendrick went on. The measures adopted early in 1975 were tailored to give the economy a very strong immediate lift, and then taper off as the private sector gathered momentum. In particular, business capital investment was expected to be moving upward strongly by early 1976, in line with the pattern of past recoveries.

But this proved to be a miscalculation. Business investment remained unusually weak in the earlier stages of this recovery. This probably reflected the severity of the recession the unusually large excess of productive capacity, and the anxiety of corporate executives to rebuild their liquidity before undertaking new capital projects. Although a moderate recovery finally got under way at the beginning of this year, Kendrick admits that it has been relatively slow. Gains in housing activity, on the other hand, have contributed significant strength to the recovery.

The long shadow of the 1973-74 inflation has influenced the course of events, he believes. The fear of renewed inflation has restrained the application of fiscal and monetary stimulus. It has also affected business inventories. The very sharp upturn in inventory accumulation in the first quarter of this year was apparently due in some degree to business fears of renewed shortages and price rises.

When steel price increases at midyear were announced well in advance they brought on a rush of buying. But this stockpiling came in the face of a sudden sag in consumer demand after the first quarter, which in turn, resulted in some involuntary backup in consumer goods inventories. By summer, fears of shortages had disappeared, and worry over inflation had eased somewhat. The result was a minor drop in inventory accumulation in the third quarter.

The quarterly increases in consumer purchases of durable and nondurable goods fell off very sharply after their surge in the first quarter of this year. In the second and third quarters, the gains were only one-third as large as in the first quarter, and about half as great as they had been during most of last year. The slackening in consumer outlays for services was much less, but these have no direct impact on manufacturing.

Reflecting the slower sales expansion, manufacturers' new orders declined from their peak in June. The leading indicators of business capital expenditures also turned less ebullient than they had been in the first half. The general slackening was reflected rather promptly in the unemployment rate, which rose from an average of 7.4 percent in the second quarter to 7.8 percent in the third, and remained at about this level in October. The increase also reflected abnormal growth in the labor force in the second and third quarters.

The fourth quarter

Entering the fourth quarter, there were underlying reasons to expect at least a mild acceleration in the rate of rise. The available data for October look rather bleak to Kendrick, however, except in housing. Industrial production fell somewhat, only in part because of the impact of strikes, and retail sales continued slow through early November.

The most important source of strength at the moment appears to be residential building. Demand for housing has increased significantly this year and building activity is now responding. The recent sharp uptrend in homebuilding costs and house prices appears to have abated in the third quarter. Sales have improved, and the backlog of unsold houses, measured in terms of the current rate of sales, has come down. The rental vacancy rate is running well below last year, and the average time needed to rent or sell new apartments has shortened considerably. The supply of funds for mortgages appears ample; savings flows into thrift institutions have held at a record high this year. Interest rates, although high, have at least been steady.

In this favorable climate, housing permits began to accelerate strongly in July, after nine months of little change. In September and October they averaged 30 percent higher than in the first half of the year. Some of the surge in September evidently reflected the efforts of the Department of Housing and Urban Development to reduce the backlog of applications for subsidized housing, but starts were still relatively high in October, and the underlying situation appears very strong.

Prospects for gains in business capital investment are less assured, but a mild acceleration appears possible. The backlog of order for capital goods increased a little in the third quarter; this could mean a stronger rise in shipments in the fourth quarter.

. . . the gains in labor productivity which have been very high so far during this recovery, will be slowing down somewhat.

On the whole, then, there has probably been some quickening in the rate of growth during the fourth quarter.

The minor inventory correction that contributed to the sluggish performance in the third quarter is probably about over, in Kendrick's view. Steel production, at least, has approximately leveled off after a rather sharp decline since last May, reflecting a downward adjustment of user inventories.

Government spending also is scheduled to strengthen somewhat. The federal pay raise, amounting to some $2 billion at an annual rate, became effective in October, bolstering personal income gains. Grants to state and local governments may increase significantly under the terms of the recently-enacted public works bill. A part of the recent shortfall in defense spending could be made up in this quarter.

Consumer expenditures, however, are likely to remain sluggish. Auto sales appear to be falling short of the rather optimistic forecasts of the producers, even apart from the obvious effects of the Ford strike. The subcompact cars in particular are very difficult to sell.

On the whole, then, there has probably been some quickening in the rate of growth during the fourth quarter, although the quarter as a whole may actually show a bit less total growth than the third quarter because of the slow start in October.

Recent price figures contain both good news and bad news for Kendrick and the economy. On the one hand, the rise in consumer prices appears to be slowing somewhat—chiefly in food prices, but also in most of the other major groups. The September increase in the Consumer Price Index was the smallest since last April, although still about 5 percent at an annual rate.

The worrisome part comes in wholesale industrial prices, which on the average have been showing a distinct acceleration from last spring up to a full one percent rise in October. But the underlying situation is not as alrming as this figure might suggest. The acceleration since spring has been largely in fuels, lumber, transportation equipment, and rubber. Lumber prices are reflecting the recent resurgence in housing—they had declined in the second quarter, when housing appeared weak.

In the other groups, however, slower rises are likely, for the next couple of months at least. A sharp increase in car and truck prices comes every year at new-model time in October. Prices in the rubber group rose sharply after the strike settlement last summer, but they have already slowed down. The fuels rise in October was unusually sharp because of one-time changes in regulations.

The next major increase will come if OPEC raises prices significantly on imported oil. But on the whole, it appears likely that the industrial price rise will slow down somewhat.

Farm products and food prices are likely to be reasonably stable, since crops all around the world were very large this year.

In forecasting the year ahead, Kendrick assumes there won't be any significant shift in fiscal or monetary policies, so that the forecast can provide a basis for assessing the need for policy changes.

The growth in real GNP in 1977 appears likely to be around 5 percent. This figure implies some acceleration from the present rate, especially in the early part of next year. For the year as a whole, however, it represents a moderate slowing from this year's average increase of about 6 percent. The major sectors showing the greatest increases will be fixed investment and government purchases.

Starting with investment, Kendrick refers to two major private surveys of plant and equipment spend-plans for next year showing nearly identical results. McGraw-Hill expects a 13 percent increase in dollar outlays, or 6 percent in real terms. Merrill Lynch looks for a 14 percent dollar gain, or 7 percent real growth. These current-dollar increases are roughly twice as large as this year's, shown by the Bureau of Economic Analysis survey which is the benchmark for these private estimates.

(Editor's note: Subsequently BEA (the Bureau of Economic Analysis) reported on a survey that indicated significantly smaller increases in business fixed investment; however, the survey covered only the first half of 1977. See story on page 14.)

By far the sharpest gains projected in the surveys are in the durable goods manufacturing industries, particularly in the automotive complex and the rubber industry. The large increases are surprising, in view of the amount of excess capacity in some industries; Kendrick says they apparently reflect an optimistic view of sales prospects. On the pessimistic side, however, he notes that not much improvement is indicated in commercial and industrial construction, as distinct from machinery and equipment. In some industries, spending plans have apparently been cut back or stretched out since last spring.

About the brightest element Kendrick finds on the economic scene for next year is residential construction. With the competition for loanable funds likely to be fairly light next year, funds available for mortgages should remain ample. The interest rate on home mortgages is expected to hold about steady. Rises in construction labor costs are likely to be moderate, since the size of union wage settlements have come down substantially in the past three years. The favorable demand factors which have led to the present surge in starts should continue or even improve next year, he believes. The supply of new apartments will still be small, since, while starts have risen, completions will remain quite low for months. Finally apartment starts will be bolstered next year by the considerable volume of government-subsidized starts now in the pipelines.

The level of starts now expected for 1977 is at

least 1.75 million, or roughly 15 percent above the probable 1976 total. Part of the gain will come in single-family housing, for which the demographic factors are favorable. The postwar babies born in 1946 are now 30 years old, when many people find themselves with both the means and the desire to shop for single-family homes. But the increase in apartment starts next year will be even greater than in single-family units—slightly so in numbers of units, substantially so in percentage terms.

Although total new residential construction will rise by around one-fourth in current dollars, Kendrick points out that this is less than the increase of almost one-third during the current. year

Inventory accumulation is likely to be moderately larger next year, as the expansion proceeds. This year's growth was conservative, and stock-sales ratios are generally on the low side.

The strength of gross private domestic investment probably will be partly offset by a decline in net exports. Kendrick expects accelerated domestic expansion to increase imports faster than in recent quarters. If acceleration in the economies of the U.S.'s major trading partners lags, then this country's nonfarm exports will probably rise by less than imports—and exports of farm products may well decline, in view of ample harvests in most countries this year.

An increase in OPEC oil prices, if it occurs, will not only increase the dollar volume of imports, but will tend to hurt American exports by reducing the ability of major trading partners to buy more from us. But the overall drop in net exports should be far less than the $12 billion between 1975 and 1976, and should remain in the black.

Government purchases are expected to rise by at least 10 percent in 1977, or 4 percent in real terms, a bit more than this year. This percentage will be less than the increase at the state and local level. It is possible that federal spending may grow a bit faster than anticipated in the early part of fiscal 1977, given the lags between obligations and commitments which accounted for part of the shortfall of spending prior to September 30. For 1977 as a whole, the budget was planned to have a near-neutral impact on the economy, but it is possible that expenditures will fall short of plans, as mentioned above.

Given the multiplier effect of the projected increases in investment and government purchases, personal consumption expenditures are likely to accelerate from recent rates. For 1977 as a whole, average expenditures will rise by at least 10 percent, above the same as in 1976. Durables are expected to continue to expand by somewhat more than the average, and nondurables by less. Although consumer sentiment has improved since 1975, it is scarcely ebullient. If the new Administration succeeds in strengthening confidence concerning economic prospects, consumer spending (and business investment as well) could rise somewhat more strongly than currently anticipated.

Adding it all up, GNP in current prices will probably rise by around 11 percent, from almost $1.69 trillion in 1976 to near $1.88 trillion in 1977.

With respect to prices, Kendrick says the upward pressure could be a little greater next year, mainly because of a stronger trend in farm products and foods.

On the nonfarm side, in addition to a price increase for imported oil, the rise in housing and business investments could put a little more pressure on industrial prices in some areas. But unused capacity cushions in most industries will act to limit the increases, and on the whole it seems likely that the amount of price acceleration next year will be modest.

The unit labor cost-push could be a bit stronger next year, simply because the gains in labor productivity which have been very high so far during this recovery, will be slowing down somewhat, although possibly remaining above average.

The rise in labor compensation, however, is not likely to change much. Although the labor bargaining calendar will be heavy in 1977, the outlook for relatively moderate settlements in major contracts appears favorable. This is chiefly because the large wage increases needed to catch up with past inflation, which were an important element in several major contracts this year, will receive less emphasis next year.

In the non-union sector, the persistence of relatively high unemployment rates should prevent any significant acceleration of increases in average earnings.

Assuming that average hourly earnings rise by 7 to 8 percent next year, with productivity going up around 3 percent, unit labor costs would increase by 4 to 5 percent. With prices rising a bit more than 5 percent, there would still be room for a modest further widening of profit margins.

In total, Kendrick expects corporate profits to show a rise of nearly 15 percent in 1977, after inventory valuation adjustment and capital consumption allowances. This compares with about a 30 percent rebound in 1976. These gains are large for a recovery period, and will help to support capital investment next year.

The real GNP growth predicted for next year, minus the probable percentage increase in productivity per person, should result in an employment rise of some 2.4 million, or 2.7 percent. Since the increase in the civilian labor force is likely to slow to 1.9 million, the employment rise will reduce unemployment by half a million in 1977. This translates to about a 7 percent average unemployment rate for the year, with a lower rate at the end of 1977. ∴

The strength of gross private domestic investment probably will be partly offset by a decline in net exports.

WILL AMERICAN CAR-BUYERS ACCEPT

LESS AUTO FOR MORE FUEL

The technology to ease the automotive aspects of the energy crisis is available, but do Americans have the will power to put it into practice?

Tremendous reductions in fuel use by the nation's automobile fleet are possible in future decades. But this possibility is hedged about by many "ifs," which largely revolve around the question: Can the American public be convinced of the need for more fuel-efficient motor vehicles, and be induced to accept the types of automobile which will do the job?

These are the major points made in a report now available on motor vehicle goals beyond 1980 prepared by a Federal Task Force established by the Energy Resources Council, chaired by Commerce Secretary Elliot L. Richardson.

The report raises questions about the ability of the automotive industry to meet by 1985 the 27.5 miles per gallon fleet fuel consumption average required by the 1975 Energy Policy and Conservation Act. The fleet fuel average is the average gas mileage of all cars currently in operation. The answers to these questions will have much to do with the place the automobile will hold in the nation's economy as domestic petroleum supplies decline and reliance on imports and prices increase.

With the 1975 automobile fleet fuel economy level of 15 miles per gallon and with a projected 2 percent per year growth in vehicle miles traveled the report explains, annual petroleum consumption over the next 20 years would rise by nearly 50 percent.

However, this increase in consumption could be eliminated through the introduction of lighter weight autos, and more efficient engines and drivetrains.

Excluding marketing and financial risks, these changes alone can prevent the projected increase in total fleet fuel consumption, and by the mid-1990s could provide a net reduction of up to 1½ million barrels per day in fleet fuel consumption as compared to 1975, the report finds.

The Task Force further concluded that a "substantial" industry effort beyond these basic changes, coupled with a reasonable approach in government regulation, could achieve a fuel saving in the U.S. automobile fleet of four million barrels a day by the same time period. Fuel use could be cut from a projected eight million barrels a day at the present rate of increase to around four million, compared to a present use of more than five million barrels a day.

The current automobile size mix is about 50 percent six-passenger cars, 25 percent five-passenger cars, and 25 percent four-passenger cars.

The absolute value of savings, the report says, depends upon the rate of introduction of various combinations of fuel-economical new cars, the de-

gree to which consumers purchase the more economical models, and the balance, timing and methods used in achieving other important national objectives such as air quality improvement, improvement in vehicle and highway safety, and the maintenance of a strong domestic automotive industry.

Without public acceptance and purchases, the most fuel-efficient design is useless. The mandated 27.5-miles-per-gallon fleet fuel consumption standard in 1985, for example, appears technologically feasible, but can only be realized with public cooperation and full understanding of the purpose. This issue looms as the major dilemma facing the federal government and the industry, in the report's view.

Projected fuel economy values range from 15 miles per gallon for the current six-passenger automobile to more than 30 miles per gallon for the six-passenger diesel and advanced engine powered vehicles which could be introduced in future years.

The new-car auto fleet average fuel economy can be increased 80 to 100 percent by the late 1980s by reducing car weight and utilizing technologically available power plants and advanced transmissions.

In the near term, the Task Force concludes, the manufacturers' average fuel economy standards set for 1978, 1979, and 1980, of 18, 19, and 20 miles per gallon respectively appear achievable by the automotive industry at current safety and emission standards, provided that the consumer buys cars in the traditional mix of sizes.

Analysis shows that fuel economies in the range of 26 to 27.5 miles per gallon can be achieved for a full line of automobiles (four, five, and six-passenger cars) under current safety and emission standards. However, to do so, the study indicates that a full-line manufacturer would have to institute one or more of the following steps:

- Reduce automobile acceleration below current norms, risking consumer rejection of the lower performance;
- Provide incentives which would lead to smaller cars taking a larger share of the market than at present;
- Adopt the light-weight diesel in appreciable numbers, although this involves unknown risks relative to problems with odor, smoke and other emissions and uncertain nitrogen oxide (NO) standards;
- Accelerate the development and introduction of upgraded transmissions, and
- Introduce innovative automobile structures in the early 1980s, a difficult changeover schedule in respect to both development and manufacturing.

Manufacturers of more limited model lines (small cars) probably would not be burdened by such steps. Thus, the manufacturer of a full line of automobiles may be placed at a competitive disadvantage with respect to the manufacturers of small cars, imported or domestic. To achieve the 27.5 m.p.g. fleet average, the report states that the full-line manufacturer will clearly have to place his small cars above 27.5 m.p.g. to balance the larger cars, which are not likely to meet this mileage.

This would mean that the full-line manufacturer's small cars would have to be lighter in weight or, more likely, lower in performance than those of his competitors which could be targeted at 27.5 m.p.g. The difference in performance could have a drastic market impact on the small car of the full-line manufacturer and thus make it even more difficult to meet the 1985 fuel economy standards.

The report says that with the fuel economy, emissions and safety steps put into motion by 1985, the fuel economy of the total automotive fleet will continue to improve beyond 1985 to at least 1995 as the later new cars take over the fleet.

The resultant fuel economy, potentially in the range of 30 m.p.g., the report adds, will depend essentially upon market actions, future safety and environmental regulations, and the results of ongoing research and development programs.

The study indicates that it is possible to achieve desirable improvements in fuel economy, safety and emissions while also holding the line on the many other factors affecting the automobile, such as initial cost, operating costs, changeover times and performance.

"If this possibility is achieved, as it should be, then the automobile can continue its major role. This means that the future prospects for automotive employment and the industry can be good," the report states. The nation thus will be able to have the valuable mobility provided by the automobile, with automobile use paralleling the increases in the driving-age population.

Explaining that a risk is involved, the report says that the rapid introduction over the next decade of new fuel-economy automobiles dictated by mandatory fuel economy standards will require, for the "big four" automobile manufacturers, a 15 to 25 percent increase in capital investment, amounting to $5 to 10 billion above normal spending levels, for facilities and equipment.

If cars continue to sell at normal rates, the report explains, this additional capital can be raised in the national money market, or can be internally generated, but there are definite risks associated with these investments, such as:

- Consumers may not buy the lighter cars in percentages which would yield the mandated fleet economies. Low consumer acceptance of models offered would result in low total sales, and industry investment and overall economic posture would be jeopardized;
- Ability to react to such uncertainties could create especially serious problems for smaller manufacturers less able to put up development funds and risk major capital on new directions;
- Changes in the national economy which have historically demonstrated overpowering effect on consumer buying power and habits cannot be ruled out;
- Potential changes in regulations on safety, emissions and fuel economy create further uncertainties. The same is true with respect to wholly new regulations which may be introduced, such as on sulfates.
- Unforeseen changes in technology which are not now clear could alter the development path.

Without public acceptance and purchases, the most fuel-efficient design is useless . . .

The report lists six additional issues of concern:

How rapidly can the auto industry change over to more fuel-efficient automobiles without an undue burden on itself, its suppliers, or on levels of employment? Ideally, the changeover should take place gradually, with adequate advance knowledge and with maximum flexibility for each segment of the industry.

How should the nation handle the risk which the automotive industry must accept in motor vehicle changeover to fuel-efficient models?

How can the considerable risks associated with

Since much energy-saving progress will depend on public acceptance of different ways of doing things, the enthusiastic reception of van-pooling in the areas where it has been introduced is particularly encouraging.

Though research on electric cars continues apace, no significant energy breakthroughs in this area are expected in the near future.

The prospect of a revolutionary new engine technology which would have a substantial impact on fuel efficiency within the 1980s is remote . . .

changeover be reduced for the smaller companies?

How may the federal government effectively balance the sometimes conflicting objectives of reduced energy, increased safety, and improved environmental quality in the requirements it imposes on the automotive manufacturers and their products, especially when these requirements are imposed by several independent agencies with separate authorities?

How far should passenger safety and emissions control be mandated into automobile designs? At what point do incremental costs outweigh incremental gains?

What changes should be made in federal policies and regulations to provide effective incentives for automobile manufacturers to more rapidly develop and supply automotive technology having substantial public benefits?

Great potential savings

The Task Force says that the value to the nation of the potential automobile fuel savings greatly exceeds the capital investment necessary to obtain these savings.

For example, the report explains, a 25-mile-per-gallon fleet average fuel economy, set against a 1975 average of 15 miles per gallon, will save over a 20-year period approximately 9½ billion barrels of petroleum, roughly the size of the Alaskan Prudhoe Bay Oil Field.

Assuming a static $11 per barrel price, this amounts to a saving of more than $100 billion.

On a less optimistic note, prospects for a highly efficient electric car, in the next ten years at least, appear slim, the report says. Substantial technological advances in batteries would be required before the electric car can offer a commercially viable alternative to gasoline or diesel-fueled automobiles.

Current and near-term electric automobile deficiencies in range, payload, performance, cost and overall energy efficiency would have to be overcome. Electric vehicles are feasible for special purposes, such as small postal delivery vans, and offer flexibility in fuel use, but the total national effect on petroleum consumption within the next 15 years will be minimal.

The prospect of a revolutionary new engine technology which would have a substantial impact on fuel efficiency within the 1980s is also remote, the report says.

Fuel efficiency improvements will derive primarily from improvements in present body and frame structures, gasoline and diesel engines and their drivetrains. However, advanced engine technology, such as the gas turbine or the external combustion Stirling type, might enter the market in the last half of the 1980s and could provide, in the decade of the 1990s, another option for reducing automotive fuel consumption, or for reducing emissions, in addition to offering a multi-fuel capability.

The Task Force says the transition to more compact, properly-designed, lighter-weight automobile designs is not likely to increase auto occupant fatalities and injuries. ☆

Energy Digest

400,000-ACRE LABORATORIES . . . Nearly 400,000 acres of land at two sites in Washington and New Mexico have been designated by the Energy Research and Development Administration as the third and fourth in a planned network of National Environmental Research Parks. ANERP is an area set aside as a protected outdoor laboratory for scientists to study the impact of man's activities on the natural environment, particularly those activities related to energy resource development or use. The designated lands surround facilities on ERDA's Hanford Reservation near Richland, Washington, (365,000 acres), and its Los Alamos Scientific Laboratory in New Mexico (27,000 acres). NERP's were established previously at ERDA's Savannah River Plant, Aiken, South Carolina, in 1972, and Idaho National Engineering Laboratory, Idaho Falls, Idaho, in 1975.

ENERGY CONTRACTS SOAR . . . The U.S. Government awarded over 100 contracts, averaging more than $1 million each during October to American firms involved in energy-related R & D projects. According to the Commerce Business Daily, this was a six-fold increase over the number of energy research contracts it publicized in October 1974. During this same period the dollar value of these contracts soared from $3 million to more than $125 million. For a free sample copy of Commerce Business Daily, which synopsizes all major government contracts, write to: Commerce Business Daily, Room 1304, 433 W. Van Buren St., Chicago, Illinois 60607.

BURY THEM NOT . . . Claiming that two burial sites for nuclear wastes have already released radioactivity into the environment, the Natural Resources Defense Council has asked the Nuclear Regulatory Commission to declare an immediate moratorium on the licensing of new sites. In addition, the group's petition asked for immediate enactment of a series of emergency regulations, including a thousand-fold increase in the fees charged to the nuclear industry for disposing of waste materials contaminated with plutonium, which remains dangerous for hundreds of thousands of years. "These low-level waste deposit sites may contain as much plutonium by the turn-of-the-century as high-level wastes, yet they have received very little scrutiny" said Dr. Terry Lash, a staff scientist in the Council's Palo Alto office. Current disposal sites are located at West Valley, N.Y.; Morehead (Maxey Flats) Ky.; Sheffield, Ill.; Barnwell, S.C.; Beatty, Nev.; and Richland, Wash. Under the council's proposal, charges would rise from about 15 cents to $57 per cubic ft. to pay for disposal of plutonium wastes in salt mines deep below the surface of the earth.

THIS IS PROGRESS? . . . The most energy-efficient method of feeding people is through hunting and gathering, according to New York energy consultant J. D. Moody, where a single BTU of investment yields about 30 BTU's in return (presuming that there is something to hunt and gather!) Contrast that with growing corn in Iowa, where we invest a BTU and we we get back only about 2.8 BTU's. For soybeans, we invest 2 BTU's for every BTU returned. We invest 10 BTU's for a BTU of rice. We invest 33 BTU's for a single BTU from commercial fishing. We invest 78 BTU's for one BTU from cornfed beef. These are extravagances and we can hardly afford them, Moody points out. The production of electricity takes three BTU's of energy in the form of gas or coal to make one BTU of electricity. "Yet our whole life style is moving in the direction of being electrified," says Moody. "The efficiency has to be improved if we're going to be able to continue to do this."

WASTE-BASED HOMES? . . . Browning-Ferris Industries of Houston has contracted with ERDA to evaluate the use of refuse-derived fuel as a supplemental energy source in the manufacture of portland cement. Since most cement plants are located close to major metropolitan areas, there is an ample and readily accessible supply of solid waste available for producing the potentially low-cost fuel. Additionally, the modifications necessary for a cement plant to burn refuse-derived fuel are relatively simple. Preliminary survey results are due before mid-1977.

AHEAD OF SCHEDULE IN ALASKA . . . The $1.1 billion terminal at Valdez for the trans-Alaska oil pipeline will be ready to receive the first flow of oil from the North Slope three months ahead of schedule according to its builder. Fluor Alaska, Inc. Fluor expects to complete phase one of the terminal by April 1. This would provide a comfortable margin for receiving the flow of 600,000 barrels of oil per day scheduled in July. The flow rate will be increased to 1.2 million barrels per day a few months later under phase two.

Public-Private Talent Interchange Benefits All

MIDDLE-LEVEL MANAGERIAL PERSONNEL EXCHANGE LETS DECISION-MAKERS SEE HOW OTHER SIDE OPERATES

Aside from the more highly-publicized search for talented people to fill the top government jobs for the next four years, there is another talent hunt going on in Washington for middle management types in both business and government to spend a year working on the other side of the fence.

The President's Commission on Personnel Interchange recruits more than 50 executives each year for its unique job-swapping program. The recruiting effort for 1977, the program's seventh year, is now under way.

Specifically, high-potential middle managers from both the federal and the private sectors are being sought for one-year assignments in their opposite sector as part of the President's Executive Interchange Program.

The Interchange program is designed to foster a better understanding and working relationship between the private sector and the Federal Government.

"The benefits to the individuals, the host and sponsoring organizations, and the nation as well, have proven substantial," according to Jay F. Morris, executive director of the Commission.

Increased awareness

Participating executives have a unique opportunity for professional growth by acquiring an increased awareness of the mission, operations and methods of their opposite numbers in the federal government or the private sector during the important middle period of their careers. While talented private executives gain experience in the government sector, outstanding government executives are assigned to responsible positions in the private sector.

"The nation benefits," Morris said, "by the development of promising leaders in government, business and education who have both the ability and the broadbased experience to deal effectively with complex national issues in the future."

Program participants come from executive positions ranging across the full spectrum of the management process.

During the seven years of the program's existence, private sector participants have come from such diverse backgrounds as general management, marketing, finance, law, engineering, education administration and association management. In their Interchange assignments, the private executives have held senior staff positions involved with important national issues including energy, inflation, environment, housing and transportation.

Participants from the federal sector have been privately employed in such fields as urban development, international relations, management information systems, economic planning and industry analysis. They have used their management skills and technical expertise to show their host companies where major savings can be realized in procurement procedures and program design. Others have assisted in technical computing efforts, systems designs and program analyses.

In addition to their regular job assignments, Interchange executives participate in an extensive educational program conducted by the Commission staff.

European seminar

In the middle of the interchange year, all executives participate in a ten-day International Study Seminar in Europe. They meet with senior officials of various governments to explore their countries' trade, social, political and military relationships with the United States and their roles within the European Community and NATO.

Throughout the Interchange year, the Commission arranges weekly sessions for the private sector executives in Wash-

BASIC TRAINING *Prior to reporting to their assigned governmental jobs, private sector participants in the President's Executive Interchange Program attend a week-long series of familiarization briefings. Above, last year's group listens to Civil Service Commissioner Jayne Spain explain the central role played by her agency.*

ington. Featuring cabinet officers, members of congress, agency heads and other prominent national figures, these sessions are informal and allow in-depth discussions of issues.

Where feasible, federal executives assigned to businesses are involved in similar programs in their host areas addressing issues that face the private sector. Featured are chief executive officers and senior officials of private sector organizations, local government leaders and academicians.

Nominations of prospective Interchange executives must be made by the top level management of their organizations. Federal candidates are nominated by the heads of their agency. Nominees are interviewed by Commission members, and selection is based on an evaluation of leadership, initiative and management ability, a history of significant on-the-job accomplishment and the potential to become a senior executive in the sponsoring organization.

Once selected, Interchange executives are matched with positions in which they can utilize specific skills and experience and which will provide them with maximum opportunity for personal growth and increased understanding.

Organizations wishing to sponsor or host a Presidential Interchange Executive should contact the President's Commission on Personnel Interchange, 1900 E St., NW, Suite 1316, Washington, D.C. 20415, (202-632-6834). Nomination forms for potential Interchange executives should be returned to that address by March 1 for federal sector nominees and March 31 for private sector nominees.

Government Regulation Under A Microscope At Recent Conference

Every year, 5,146 different required reporting forms, exclusive of tax forms, are distributed to business by the Federal Government. Completing these forms requires an estimated 130.5 million work-hours annually, according to the American Management Associations (AMA). A leading automobile manufacturer estimates its cost of complying with these and other government requirements at $1.3 billion per year.

With this background, the AMA decided to hold a First National Forum on Business, Government and the Public Interest in Washington, D.C., last month. Nearly 300 interested participants heard such experts as Ralph Nader; Senators Gary Hart and Edmund S. Muskie; J. Kevin Murphy, a vice-chairman of the AMA; Robert D. Lilley, President (ret.) of American Telephone & Telegraph Co.; Harry Holiday, president of Armco Steel Corp.; Cornell Maier, president of Kaiser Aluminum and Chemical Corp.; and Dr. Walter W. Heller, professor of economics at the University of Minnesota.

Workshops were scheduled on equal employment, privacy laws, government regulation at the state level, and the various federal regulatory agencies: the Occupational Safety and Health Administration, the Environmental Protection Agency, the Federal Trade Commission, the Consumer Product Safety Commission, the Securities and Exchange Commission, the Federal Communications Commission, and others.

The Forum also considered the other side of the coin: the benefits of regulations. According to the Senate Government Operations Committee, car safety regulations, combined with the 55-mile-per-hour speed limit, have cut highway deaths in half. And the Consumer Product Safety Commission states that in the two years since child-resistant closures have been required for aspirin products, deaths due to aspirin ingestion by children under age five have been reduced by 48 percent.

A basic complaint of the business community, however, is with agencies that have issued contradictory regulations of disputed value.

Regulatory crisis approaching

According to James L. Hayes, AMA president, "We are on the verge of what amounts to a regulatory crisis, a nightmare for all concerned, especially the consumer, because the consumer is the one who pays for regulation . . . Unless we do something now to create an understanding among the major sectors involved, we may become hopelessly enmeshed in a maze of misunderstandings, conflicting policies and decisions, which, instead of helping the economy prosper or protecting the public interest, may cause economic stagnation and public unrest."

Among the subjects considered by the speakers: the changing focus of legislation, from profit to product, from civil to criminal liability; the real cost of regulation—economic, social, political, moral; present trends in the legislative/regulatory process; the changing role of Congress, the regulatory agencies and the courts; enacted vs. enforced legislation; the prospects for national economic planning; and privacy legislation.

Senator Hart saw the three areas in which government is exercising increasing control as price regulation, tax subsidies and incentives, and health and safety regulation. He opposed the first, wished to see more study devoted to the second, and advocated experimenting in the third area to try to come up with less burdensome requirements. He stressed the need for more congressional oversight, and supported the "sunset" legislation, which would require a federal agency to justify its existence periodically or go out of business.

Ralph Nader outlined the areas in which he felt regulatory reform was needed: the procedural process, opening up meetings (the "sunshine" law), advisory committee reform, conflicts of interest, "sunset" legislation, the role of the General Accounting Office and the Congress, the slow response of the regulatory agencies to petitions, the Freedom of Information Act, the imbalance of power between sellers and buyers, and accountability.

His recommendations for improvement: continued criticism, increased competition, making use of innovative ideas (which are already available), and, always, an acknowledgment of consumer rights. If these goals are achieved, he foresees a diminishing need for regulation.

Adversary nature decried

Robert D. Lilley expressed his concern with "the intensely adversary nature that has begun to characterize the public sector/private sector division and by the either/or formulations that so often flow from this opposition of interests. I recognize that the role of government has been central politically throughout this country's history—beginning at least with the divisions that parted Jefferson and Hamilton . . . What troubles me, however, is that we have accepted and in fact perpetuated a *routine* hostility—as if there were something in the natural and eternal order of things that established it permanently."

Among the drawbacks of regulation he cited "the often bewildering array of standards . . . the costs . . . what many people consider intrusions in the area of civil rights and personal discretion . . . There are also the restrictive effects of regulation that some companies contend have hobbled them in their efforts to compete effectively in foreign markets . . . But the case *for* government intervention is just as easily made. It is made by the history of Western society. It is made by the developments of our own time. And—to conceal the fact no longer—it is made by businessmen themselves whenever it suits their interests."

He recommends the public interest as a guide in place of any other standard. And he means that it be used in "a serious reordering of our approach to the whole spectrum of business, government and consumer relations."

"What I envision . . . is a set of standards or guidelines that might be applied industry-by-industry spelling out the public interest requirements that would then take their place a primary place in the industry's planning."

Capital Spending Flattens Out; No Immediate Rise Seen

After rising substantially since 1975, capital spending leveled off in the last half of 1976 and in terms of constant dollars is expected to continue at approximately the same level in the first half of 1977. (For a discussion of capital spending's role in the national economy, turn to story beginning on page 4.)

According to a survey conducted in late October and November by Commerce's Bureau of Economic Analysis, U.S. business planned to increase capital spending in terms of current dollars 4.3 percent in the fourth 1976 quarter, 1.2 percent in the first 1977 quarter and 1.5 percent in the second 1977 quarter.

The survey found that capital spending for the first half of 1977 in current dollars is planned at $130.3 billion at a seasonally adjusted annual rate. This is 4.1 percent higher than the second half of 1976 and 11.9 percent higher than the first 1976 half. Capital spending in the third quarter, at an annual rate of $122.6 billion, was 3.7 percent higher than the second quarter.

Capital spending for the full year 1976 is expected to total $121.2 billion in current dollars, 7.5 percent above 1975. Spending in 1975 was $112.8 billion, a mere 0.3 percent increase over 1974.

To adjust these figures for inflationary effect, the survey points out that the implicit price deflator for fixed nonresidential investment in the national income and product accounts rose at an annual rate of 4 percent over the first three quarters of 1976.

If the latest spending plans reflect price rises of that magnitude, an increase in real investment of about 3 percent is indicated for 1976. The first half of 1977 would show virtually no change from the second half of 1976, but would be nearly 8 percent above the first half.

The planned increase in capital spending from the second 1976 half to the first 1977 half, expressed in current dollars, the survey explains, reflects gains in both manufacturing and nonmanufacturing.

The expected increase in manufacturing is 3 percent. Durable goods producers plan to increase spending 4 percent, reflecting large increases in the transportation equipment industries. An increase of 2 percent for nondurables producers is attributed mainly to the rubber, textile, and food beverage industries.

In nonmanufacturing, the survey found, a 5 percent increase in the first half of 1977 over the second half of 1976 in current dollars reflects substantial increases planned by electric utilities, airlines, and commercial firms.

Taking the entire year, manufacturers expect their 1976 capital spending to increase 10.5 percent over 1975. Nondurables producers expect a 12.5 percent rise, with the largest increases consisting of 26 percent in textiles, 20 percent in food/beverage, and 18 percent in paper. Petroleum shows a 12 percent gain.

Durables producers expect an 8 percent increase, with motor vehicles and stone-clay-glass reporting the largest increases, namely, 20 and 18 percent respectively. Electrical machinery is up with 14 percent, and nonelectrical, 12 percent. Decreases are expected by the primary metals producers, 6 percent for nonferrous and 2.5 percent for iron and steel.

Spending by nonmanufacturing industries is scheduled to rise 5 percent in 1976 as compared with 1975, with 13 percent increases by "other transportation" and 11.5 percent by public utilities. Airlines expect spending to decline 28 percent, and railroads, 8 percent.

Improved County Business Report Series Being Issued

The first of the most recent series of County Business Patterns reports—that for New Mexico—has been released by Commerce's Bureau of the Census.

The series—which will include reports for each state as well as a U.S. summary volume—reflects business activity in 1974 and is the only source of data for economic enterprises for all counties in the U.S. in the years between the Economic Censuses. The new reports also reflect the results of an extensive program to enlarge the scope of the data so they will be more valuable to users.

A major innovation is the collection and tabulation of data on an establishment basis, rather than on a reporting unit basis as in the past. This means that each physical location of a multi-establishment firm is now counted separately. Not only will this give a more accurate picture of the economic activity of each county, but it will make County Business Patterns largely compatible with data gathered in the Bureau's five-year Economic Censuses.

Two other important changes have been made. The latest reports use 1972 Standard Industrial Classification (SIC) codes whereas previous tabulations were based on 1967 SIC codes. And, the new reports show total first quarter payroll and total annual payroll data in order to present more meaningful information concerning those industries for which first quarter data are not indicative of their annual operations.

Data in the new reports cover most of the economic divisions of the 1972 SIC code, including agricultural services, mining, construction, manufacturing, transportation, public utilities, wholesale trade, retail trade, finance, insurance, real estate, and selected services.

The primary data items in the new reports include SIC code, industry, number of employees for week ending March 12, payroll for the first quarter and the full year, and number of establishments by employment-size class.

Separate tables by major industry group provide data and size detail on firms employing more than 1,000 persons.

Reports in the County Business Patterns series are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 or from Commerce District Offices in major cities throughout the U.S. The New Mexico report (CBP 74-P33) is priced at $1.45.

A Year Without Hurricanes! But '77 Could Be A Zinger

There was no Galveston in 1976 or other disastrous tropical hurricane. But probably the nation should keep a double watch in 1977, because such luck is not likely to last.

Galveston refers to the deadliest natural disaster in North American history when a powerful tropical hurricane swept over Galveston Island in September 1900 drowning 6,000 persons. There have been other killer hurricanes since, but none as bad as this one.

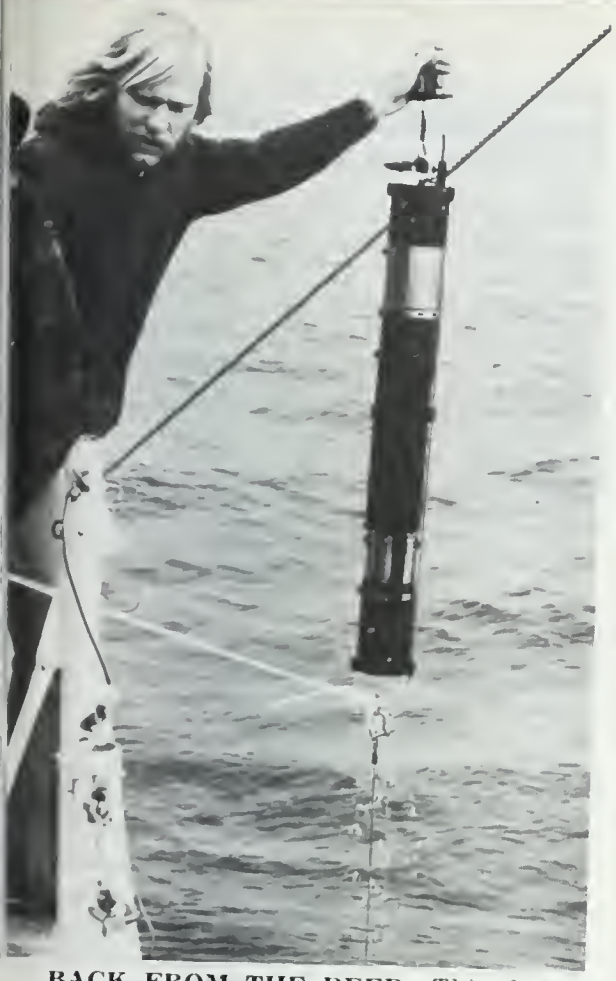
September is the peak month for hurricanes. The hurricane season, however, formally ended November 30, and there is no likelihood of hurricanes now until the warm months of 1977.

"As far as we were concerned," says Dr. Neil L. Frank, Director of the National Hurricane Center of the National Oceanic and Atmospheric Administration (NOAA), in Miami, "this was the year without a September. The effect was that, for the first time since 1962, there were no tropical storms or hurricanes in the Gulf of Mexico or the Caribbean."

Dr. Frank says weather patterns over hurricane-producing areas of the Atlantic went from a "mid-summer pattern to a late-autumn pattern very rapidly this year without ever producing the typical September pattern which has so often produced super-hurricanes in the past."

He explained, however, that "while this pattern of tropical storm and hurricane formation was extremely unusual, it should under no circumstances be regarded as a reason for apathy along the U.S. Gulf and Atlantic Coasts next year.

"We simply cannot anticipate seasons like this. Next year could be the season for the Gulf and Atlantic Coasts to be hardest hit."



BACK FROM THE DEEP—*This device, developed by scientists from Commerce's National Bureau of Standards and the University of Maryland, can retrieve sea-floor bacteria at the same pressures they are used to in the depths. Study of such pressure-loving organisms is considered crucial to understanding the ocean's ability to decompose the debris of an industrial society.*

Device Retrieves Sea-Bed Bacteria Samples At Pressures They're Used To

A new device may provide some answers based on fact rather than guesswork regarding the effectiveness of deep sea bacteria in decomposing petroleum and domestic and industrial wastes dumped into the ocean.

The device is a noncontaminating deep ocean sampler by which water samples may be retrieved at the deepest ocean depths, ranging up to about six miles, while essentially maintaining the retrieved samples at the pressures corresponding to these depths. The study of pressure-loving organisms in the deep ocean has been limited by the change in pressure that normally occurs during retrieval by conventional water-sampling techniques.

Study of such organisms is considered a critical step in understanding the microbial ecosystem of the deep sea. The decomposition of petroleum and other materials by deep sea microorganisms has been of special interest because of the increased attention given to offshore exploration and development of gas and oil resources and deep-ocean dumping of domestic and industrial wastes.

If deep sea bacteria do not decompose organic and inorganic wastes very rapidly, scientists explain, the oceans may become overloaded with foreign materials to such an extent as to affect their productivity and, in time, human activities dependent on the sea. The overall research is designed to provide useful information about the kinds and activities of deep sea bacteria.

The new instrument was developed by physicists Meyer Waxman, Harry A. Davis and Dr. Max Klein of the Institute for Basic Standards of Commerce's National Bureau of Standards (NBS), and microbiologists Dr. Rita R. Colwell and Paul S. Tabor in the University of Maryland Department of Microbiology. The research was funded by NBS and a grant from the National Science Foundation.

The sampler is said to be relatively inexpensive, small, about 36 kilograms in weight, corrosion resistant and safe to operate. It is rugged and reliable enough to be used in any deep sea ocean biological sampling, even from aboard a vessel having relatively primitive equipment. It can be operated from a ship's cable or from a free fall vehicle and relies only on mechanical spring power for operation.

The sampling chamber functions as an incubating chamber in which potential organisms in the sample can be cultured and experiments carried out on their metabolic activities. Subsamples may also be removed from the chamber without decreasing the chamber pressure and without decompression of the subsamples.

In one experiment conducted on deep sea bacteria, scientists found that the microorganisms biologically degrade petroleum, but that the process proceeds extremely slowly.

Management Courses Offered At Home, Work Or College

The American Management Associations is offering 35 management education courses for independent self-study, in-company training or continuing education classes at local colleges. The courses are divided into several series: general management skills, managerial finance and control, management and the computer, and marketing management.

All 35 courses are available in independent self-study format; 15 have leaders' guides, enabling them to be held in-company for a group of employees. Eighteen colleges and universities offer AMA courses, for those who feel that the higher cost involved is justified by interaction in a classroom setting and by college faculty instruction.

For a brochure outlining the course offerings, write American Management Associations Extension Institute, 135 West 50th St., New York 10020.

Many Industries Increased Productivity In 1975

Productivity increased in 1975 in more than half of the industries for which the Department of Labor's Bureau of Labor Statistics regularly publishes measures. These gains were in contrast to 1974, when productivity declined in a majority of the industries measured.

The growth in industry productivity was in line with the productivity gain in the nonfarm business sector, which increased 1.8 percent in 1975. In many industries, as well as in the nonfarm business sector, output declined, but employee hours declined even more, resulting in the productivity gains.

Motor vehicle manufacturing, one of the more significant industries covered, recorded a very large productivity increase in 1975. The increase—7.6 percent—was more than double the industry's long-term rate of productivity advance of 3.6 percent, and was based on a drop in output of 6.9 percent and a much larger decline in employee hours of 13.5 percent.

On the other hand, steel manufacturing, another key industry, had its largest productivity falloff in the currently published series, with a drop of 11.6 percent. Output declined by a near record 24.3 percent while employee hours fell by 14.4 percent.

Also gaining more than 5 percent were metal can manufacturing, footwear, bakery products, pharmaceuticals, cigarettes, soft drinks and hosiery.

Productivity declines were noticeable among durable goods manufacturing industries, many of which posted record output declines due to a falloff in demand for their products. Among those with declines were gray iron foundries, aluminum, copper rolling and drawing, household appliances, clay refractories, radio and television sets, and hydraulic cement.

Among mining industries, coal mining had a record productivity decline of 10.4 percent, the seventh consecutive year of decrease. Productivity also dropped in iron mining and nonmetallic minerals. Productivity increased 8.2 percent in copper mining, however.

In transportation, railroad and trucking productivity both fell. Output was down significantly in those industries, due to the widespread drop in manufacturing activity in 1975. On the other hand, air transportation had a gain in productivity of 1.2 percent, and pipelines grew by 1.5 percent.

In other nonmanufacturing industries, productivity grew in telephone communications, hotels and motels, and gas and electric utilities, and fell in gasoline service stations.

Details are available from the Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20210.

SUCCESS STORY—*Jim Shaw, right, greets customers at his Winston-Salem tire company. Shaw's firm has a lucrative contract with R. J. Reynolds Tobacco Company.*

TOBACCO FIRM ACCOUNT GIVES NEEDED BOOST TO MINORITY BUSINESSMAN

Black businessman Jim Shaw has a secret weapon that helps him run a minority business successfully: hard work. The 39-year-old Winston-Salem, N.C., businessman owns Shaw's Tire Company, which recently wrapped up a good-sized slice of the R. J. Reynolds Tobacco Company's tire account.

Shaw started working early, helping his father sharecrop when he was only five years old. As a young man he moved to Winston-Salem and worked in a hotel, restaurant and retail store. In 1957 he went to work for the Reynolds Company in one of its tobacco factories. Although he worked his way up, ten years later he felt he wanted something more: being his own boss.

Shaw heard of a service station for sale, and took his profit-sharing money earned at Reynolds and bought the business. When he took over the station it was selling 17,000 gallons of gasoline a month. In two years, he had raised the the total to some 65,000 gallons a month.

In 1969, Shaw became the first minority B. F. Goodrich tire dealer in the United States, and he began calling on R. J. Reynolds for their tire account. Reynolds kept sending him back for better prices.

"They taught me something about business," Shaw says of Reynolds. "They wanted to help me but they wanted even more to turn me into a businessman."

Eventually, his price was right and Reynolds started sending him business. When a downturn occurred in the economy, a Reynolds executive helped Shaw over the hurdle with financial advice, and another Reynolds staff member arranged a business loan. Reynolds also made plans for Shaw to do the recapping of tires to service the needs of the giant Sea-Land Corporation in New Orleans, a subsidiary of Reynolds Industries.

Shaw's business is now very successful. He holds many civic posts, including vice-president of the regional Boy Scouts Council, a member of a Governor's Committee, and several community service organizations. Yet he still works alongside his employees to get the job done.

More Than $100 Million Now Available To Invest In Minority Enterprises

With the recent licensing by the federal government of new minority enterprise small business investment companies (MESBICS) in New York City and Houston, the MESBIC industry now has $100 million available for investment to promote minority-owned businesses.

MESBICS are privately owned venture capital companies licensed and regulated by the U.S. Small Businesss Administration. They specialize in financing business firms owned by economically disadvantaged individuals.

Under the authority of the Small Business Investment Act, SBA can provide up to $4 of government funds for every $1 of private financing to licensees capitalized at $500,000 or more.

MESBICS are located in 30 states, the District of Columbia and Puerto Rico. The average capitalization is slightly over $500,000. They provide financial assistance to every type of small business, including retail and wholesale trade, service industries, manufacturers and construction companies.

Besides financing, the 86 MESBICS now operating nationwide also offer management and technical advice to the owners of the firms they finance.

The newly licensed MESBICS, American Asian Corp. of New York, and Financial Corporation of Houston, boost the total amount of private capital invested in MESBICS to $47.9 million.

Under MESBIC regulations, the $47.9 million in private funds are leveraged with government loans and preferred stock valued at $52.8 million to make available a basic pool of over $100 million for direct investment in minority-owned enterprises. And direct MESBIC investments can spur as much as $900 million of additional financing from commercial lending sources.

The American Asian Corp., capitalized at $503,000, specializes in financing firms owned by Chinese Americans. It is the fourth Chinese-owned and operated MESBIC ever formed, and the second located in New York City. The other two are in California.

Financial Corporation of Houston is owned by 35 stockholders, most of which are Houston corporations. Together they invested $770,000 in the new MESBIC.

The Office of Minority Business Enterprise, established in 1969 in the U.S. Department of Commerce coordinates federal and private sector activities in support of the development of minority-owned businesses. As such they market the MESBIC concept and help prospective operators prepare applications and set up their organizations.

NATURAL GAS SUPPLY DOWN, BUT NO CRISIS SEEN THIS WINTER

Natural gas supplies will be a little tighter across the nation this winter . . . but adequate.

Natural gas curtailments to end-users under normal weather conditions for the coming winter are estimated at 1.84 trillion cubic feet, an increase of 424 billion cubic feet, or 30 percent over curtailments actually experienced last year. However, as long as normal winter weather prevails, supplies of alternate fuels nationally should be adequate to cover the projected curtailments of natural gas.

No curtailments of residential customers are projected for the current heating season which runs through March 31. However, some curtailment of commercial customers is projected and—as was the case last year—industries and electric utilities are expected to be hit the hardest.

The Federal Energy Administration estimates that some commercial customers with no alternative fuel capability in Ohio, Iowa, North Carolina, and Indiana could have problems if there is a prolonged cold spell this winter. When such customers are identified, they are referred to the Natural Gas Action Group in the Department of Commerce, which assists companies impacted by curtailments.

Curtailments, by themselves, are not a meaningful measure of the impact of the natural gas shortage on end-use customers. The final impact on end-users depends also upon the availability of alternate fuels, supplemental gas, or emergency gas used to offset the curtailments.

Inventories of middle distillates and propane were high as the nation entered the heating season.

Primary stocks of heavy fuel oils are lower than last year, but refiners and marketers are expected to rely on reserve capacities to meet this winter's demands. The electric utility industry, one of the largest users of residual fuel oil as an alternate fuel, has higher oil stocks than in either of the past two years.

FEA's projections show that a prolonged cold weather period could place a temporary local strain on delivery capabilities affecting the availability of propane in Georgia, Maryland, North Carolina, South Carolina, Tennessee and Virginia. Such a situation could also affect availability of middle distillates in Arizona, Kentucky, Tennessee and West Virginia.

The FEA's curtailment predictions are based on responses to an FEA survey by 1,700 gas distributing companies accounting for about 95 percent of total deliveries to end-users of natural gas. These predictions are based on projected winter weather conditions as estimated by the reporting companies for their marketing areas.

The major impact of incremental gas curtailments this winter over last winter will be higher costs for additional alternate fuels used to replace the larger amounts of missing gas. The magnitude of these additional costs relative to last year could be from $550 to $650 million across the nation.

FEA is encouraging natural gas users to line up supplies of alternate fuels. The agency itself will allocate emergency supplies of propane if necessary.

These actions are in addition to the agency's proposing and supporting emergency legislation to allow curtailed users to obtain additional gas supplies from the intrastate market.

Survey Lists Sources On Properties Of Metal

Engineers and others needing information on the electrical and magnetic properties of metals will be interested in a new publication from Commerce's National Bureau of Standards. *Critical Surveys of Data Sources: Electrical and Magnetic Properties of Metals* is a directory of authoritative sources of numerical data on electrical and magnetic properties of metals, with emphasis on commercial alloys.

It is the fourth in a series of surveys, the others covering mechanical properties of metals, ceramics, and the corrosion of metals.

The survey includes details on 59 sources, such as handbooks and other publications, information centers, trade associations and technical societies. Information on the properties and materials covered, criteria used in selection of data, size of data bank, cost of data access if any, and other pertinent details are also included.

The survey should be particularly useful to engineers involved in the design of equipment where the properties of metals must be known. It will also help researchers determine what significant properties are generally available on important materials, what group of materials might provide a minimally representative list of well-documented property data sets, what property determinations are most conspicuously lacking and what existing compilations might afford the best base for building a standard reference data set for electrical and magnetic properties.

The survey is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20234, SD Catalog Number C13.10:396-4, for $1.55.

The other reference books in the series, which can be obtained from the same address, are:

Critical Surveys of Data Sources: Mechanical Properties of Metals, SD Catalog No. C13.10:396-1, $1.25;

Critical Surveys of Data Sources: Ceramics, SD Catalog No. C13.10:396-2, $1.25;

Critical Surveys of Data Sources: Corrosion of Metals, SD Catalog No. C13.10:396-3, $1.30.

In all cases, add 25 percent for foreign mailing.

Photo Industry's Explosive Growth Detailed In Report

The whys and wherefores of the explosive growth in the nation's photographic industry are presented in a recently-released Commerce study.

Published by the Domestic and International Business Administration, the report outlines the industry's major contributions to the economy and gives some insights into the factors that spurred its growth during the decade from 1963-73.

The report describes the products classified as belonging to the photographic industry and examines their applications. It also analyzes its marketing structure and competitive position in world production and foreign trade.

As the study points out, the United States continues to be the world's major exporter of photographic products. In 1975, exports were valued at $1.1 billion, almost a seven-fold increase over the $161 million exported in 1963.

Geographically, the northeast region of the country produced about 80 percent of the industry's output and accounted for 73 percent of total industry employment in 1972. The major manufacturing facilities of Eastman Kodak, Xerox, Polaroid and GAF are located in this region.

The industry is highly concentrated. Four out of 554 companies accounted for 75 percent of the industry's value of shipments in 1972.

The decade's innovations and improvements in equipment which have given rise to new technologies and greatly expanded the use of photographic techniques are covered in detail. It also evaluates the photographic techniques benefiting the commercial-industrial-professional user.

Copies of this publication are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The price is $1.70. Copies can also be purchased at Commerce Department District Offices.

MISSISSIPPI RIVER KEY TO MAJOR POTENTIAL INDUSTRIAL EXPORT NET

Industrial sites along Mid-South waterways feeding into the Mississippi River have exceptionally large potential for expansion of U.S. export trade, with a consequent great increase in jobs and the gross national product and tax revenues.

This point is made in a report recently issued by Commerce's Economic Development Administration. EDA analyzes the potential for economic stimulation and job creation of 123 industrial sites along the Mississippi River and other mid-South waterways.

The report comments that, while about 250,000 firms in the U.S. are believed to have an export potential, only 20,000, or 8 percent, sell their products abroad.

It has been estimated, the report says, that if this rate could be increased one percentage point a year, more than 2.5 million jobs would be created, the gross national product would rise by $65 billion, and $17 billion would be added to federal tax revenues. This estimate is based on what is regarded as a conservative calculation of 40,000 jobs for every billion dollars of additional exports.

The nation exports, according to another estimate, only 5 percent of its gross national product, while Japan exports 13 percent, Canada 20 percent, and the Netherlands 36 percent of their GNP.

The report comments that since the 1950s export business has grown one-third faster than all other U.S. industry. New firms, it points out, became exporters when the prices of U.S. products became competitive due to technology advances, dollar devaluations, and other currency changes.

John W. Eden, Assistant Secretary of Commerce for Economic Development, said the engineering and economic study on which the report is based will help federal and state agencies and local communities plan for long-range industrial development in the region.

The 123 industrial sites analyzed in the report are located along the Mississippi River and its tributaries and the Gulf intra-coastal canal.

Eden said they have access to about 10,000 miles of improved shoreline connecting 20 states, and also have access to industrial areas in Pittsburgh, Cincinnati, Chicago, Minneapolis, Memphis, Kansas City, St. Louis, New Orleans, Houston, Mobile, Nashville, Chattanooga and Knoxville.

"The importance of the study to the survey team," Eden observed, "is the potential it uncovers for U.S. manufacturers to take advantage of expanding overseas markets."

Included in the study are 24 industrial sites at 15 established ports and 99 others adjacent to the shipping centers.

The sites were analyzed for physical features such as accessibility by all forms of transportation; the availability, suitability, and assurity of land; and available utilities. Also considered were the labor forces, the current level of commodity shipments and the propensity of each area to develop products for exports.

The report is entitled *Waterfront Industrial Sites in the Mid-South.* The study was conducted by the Regional Economic Development Center of Memphis State University, Memphis.

Copies may be obtained from the National Technical Information Center, Springfield, Va. 22161. Refer to PB-258704AS.

Calendar Of Business Events

Jan. 5—Gaithersburg, Md.—Symposium on Commodity Supply Policy, National Bureau of Standards. Contact: Gregory Tassey, A 735, Admin. Bldg., NBS, Washington, D.C. 20234 (301-921-3171).

Jan. 5—San Francisco—Time Mgt. for Managers seminar, Golden Gate Univ. Contact: Dorothy Satir, Ctr. for Mgt. Development, Golden Gate Univ., 536 Mission St., San Francisco, Calif. 94105 (415-391-7800, ext. 323).

Jan. 8—San Francisco—Incorporating for Professionals seminar, Golden Gate Univ. Contact: see address above.

Jan. 10-12—Gaithersburg, Md.—Workshop on Applications of Phase Diagrams in Metallurgy & Ceramics, National Bureau of Standards. Contact: Ronald Johnson, B 348, Materials Bldg., NBS, Washington, D.C. 20234 (301-921-2835).

Jan. 10-12—Washington, D.C.—Seminars on Management by Objectives and Improving Managerial Skills, Georgetown Univ. Contact: Betsy Girton, Continuing Mgt. Education, Georgetown Univ., RCA Bldg.-Education Ctr., 1901 N. Moore St., Rosslyn, Va. 22209 (703-525-6300).

Jan. 10-13—Minneapolis—Marketing and financing in the construction industry seminars, conducted by Jack Miller. Contact: Madeline Graeter, Group Communications, 6101 SW Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

Jan. 11-12—Chicago—Food Industry Instrument Needs, Holiday Inn O'Hare Kennedy. Contact: Registrar, Instrument Needs Seminar, Suite 2155, 2 N. Riverside Plaza, Chicago, Ill. 60606 (312-346-3942).

Jan. 12—Houston—Selection Interviewing: Strategies, Tactics & Skills Practice, Shamrock Hilton Hotel. Sponsor: New York Univ. Contact: Heidi Kaplan, New York Conference Management Ctr., 360 Lexington Ave., New York 10017 (212-953-7266).

Jan. 12-13—Clemson, S.C.—Energy Conservation in the Textile Industry. Sponsors: Clemson Univ., Commerce Columbia District Office: Georgia Tech. Contact: Dr. Ralph D. Elliott, 112 Sirrine Hall, Clemson U., 29631 (803-656-2200). 2200).

Jan. 12-14—Akron — Sales Management seminar, Akron Downtown Holiday Inn. Contact: Dr. Joseph C. Latona, Bureau of Organizational Development, Univ. of Akron 44325 (216-375-7337).

Jan. 14—New York—Selection Interviewing: Strategies, Tactics and Skills Practice, Barbizon Plaza Hotel. Sponsor: New York Univ. Contact: Heidi Kaplan, see address above.

Jan. 14—Sacramento—Business Opportunity/Federal Procurement Conference, Convention Ctr. Sponsor: Rep. John E. Moss. Contact: Jerry Wymore, c/o Rep. Moss, 650 Capitol Mall, Room 8058, Sacramento, Calif. 95814 (916-440-3543).

Jan. 16-21—Dallas—Dallas Winter Home-furnishings Market. Dallas Market Ctr. Contact: Delores Lehr, V.P., Dallas Market Ctr., 2100 Stemmons Freeway, Dallas, Tex. 75207 (or 1-800-527-2730).

Jan. 17-18 — San Francisco — Fundamentals of Management & Organizational Behavior for Women, Hyatt Regency Hotel. Sponsor: The Wharton School. Contact: Heidi Kaplan, see address above.

Jan. 19-21 — Dallas — Contract/Design Show (CONDES IV), Dallas Market Ctr. Contact: Delores Lehr, see address above.

Jan. 24-25—Washington — Terrorist Activities Workshop, Twin Bridges Marriott Hotel. Contact: American Society for Industrial Security, 2000 K St. NW., Suite 651, Washington, D.C. 20006 (202-331-7887).

Jan. 24-26 — Philadelphia — Women in Management, Drexel Univ. Contact Director, Continuing Education, Drexel Univ., 32nd & Chestnut Sts., Philadelphia, Pa 19104 (215-895-2154)

U.S. Position In Exports Of Manufactures Levels

FOR SECOND QUARTER, COUNTRY'S SHARE DECLINED ONLY SLIGHTLY, COMPARED TO PREVIOUS QUARTER

In the second quarter of 1976, the U.S. share of world exports of manufactures, excluding shipments to this country, declined slightly following a substantial drop during the previous three-month period. The U.S. standing of 20.6 percent remained well below the average of 1975 as a whole.

The weaker U.S. position reflected a mixed pattern of gains and losses among the six commodity groups shown in the table on next page. This country's share increased in four of these groups with especially strong rises in electric machinery and transport equipment. In contrast, the U.S. standing deteriorated sharply in basic manufactures, which is the largest commodity group in terms of world exports.

The dip in the U.S. share reflects slower growth of U.S. exports of manufactures than that of 13 major rivals combined. This difference in rates of expansion, and thus in the magnitude of the share loss, was much narrower than in the previous quarter. U.S. exports accelerated from the rate recorded in January-March while those of this country's competitors, adjusted for exchange rate changes, slowed slightly. Slower but still substantial rates of growth reported by Germany and Japan, and the absolute decline in shipments from the United Kingdom, accounted for the deceleration abroad. The Netherlands, France and Italy, however, stepped up their overseas sales as compared to the change in the previous quarter.

In basic manufactures, the U.S. share dropped more than one and one-half percentage points to 11.6 percent, its lowest level since mid-1973. U.S. shipments of these semimanufactured goods—various materials and certain finished metal products—generally showed little change from their level of the previous quarter. However, U.S. exports of paper and paperboard and iron and steel tubes, pipes, and fittings were especially sluggish. At the same time, deliveries by our competitors climbed sharply, led by a 40 percent advance in Japanese sales.

This country's share receded somewhat in miscellaneous manufactured articles, which includes nondurable consumer goods and professional and scientific instruments. U.S. deliveries of most products in this group showed little change from the previous quarter except for clothing where a moderate advance was recorded. Among the other suppliers, exports by the Netherlands were particularly strong and those from Japan increased notably as well.

The sizable jump in U.S. chemical exports boosted this country's share to 21.5 percent, its highest level since late 1971. Higher sales of organics, plastics and resins, and medicinals and pharmaceuticals contributed importantly to the U.S. gain, more than offsetting weaker shipments of manufactured fertilizers. Italy and the Netherlands posted the largest export rises among the other suppliers, while deliveries by the United Kingdom slipped fractionally.

In nonelectric machinery, the U.S. share rebounded to 27.2 percent after posting a large loss during the previous three-month period. This partial recovery reflected a reversal of the trends in overseas sales by both the United States and the other suppliers. Following a weak export performance in the first quarter, U.S. exports strengthened during April-June. Over the same period, deliveries by almost all of the United States' competitors slowed substantially. U.S. exports of electronic computers, power, and agricultural machinery all showed sizable gains which more than offset the decline in sales of metalworking machinery.

The United States reported share increases of one and one-half percentage points in both electric machinery and transport equipment exports. U.S. exports of the former jumped seven percent and increased the U.S. share to 23.8 percent. While those of our competitors as a group showed little change, individual countries recorded substantial shifts. In particular, Japanese exports, which soared 44 percent in the first quarter, fell nearly one-fourth during April-June. At the same time, however, the Netherlands, Switzerland, Belgium-Luxembourg and France all expanded their shipments sizably. Important contributions to the increased U.S. sales were higher deliveries of power machinery and switchgear, electronic components, and telecommunications equipment.

The U.S. share of transport equipment exports rose to 25.1 percent. Among other major suppliers, only France approached the U.S. rate of gain while most of the others reported much smaller advances. A $300 million jump in deliveries of U.S. aircraft accounted for about half of the 15 percent rise in overall U.S. sales in this commodity group. Among the many nations increasing their purchases of U.S. aircraft in the second quarter, Saudi Arabia led with a rise of about $90 million. Concurrently, shipments of automotive products to Canada and other countries, which had been generally sluggish during the previous quarter, rebounded strongly.

U.S. Contractors Advised: Bring Documents To Nigeria

Immediate availability of business documents is being stressed to U.S. construction firms interested in ventures in Nigeria.

The U.S. Embassy in Lagos is advising company representatives planning trips to Africa to form Nigerian partnerships or joint ventures that they can avoid delays in registering such enterprises with the Nigerian Federal Ministry of State by bringing with them all the required supporting documents.

Such documents include: current financial statement, evidence of successful completion of construction work in the field being considered, financial references and statements attesting to company reputation. With such documents at hand, it is stated, Commercial Officers at the U.S. Embassy can facilitate the registration process.

U.S. SHARE OF WORLD EXPORTS OF MANUFACTURES

Adjusted for seasonal variation

Commodity	U.S. exports (million dollars)	U.S. share* (% based on export-weighted exchange rates[1])
Manufactures, total		
1974	64,559	20.3
1975	72,118	21.3
1974 1st qtr.	14,273	20.4
2nd	15,825	19.8
3rd	16,861	20.1
4th	17,737	20.9
1975 1st	17,339	20.7
2nd	17,668	20.6
3rd	18,371	21.9
4th	18,880	21.8
1976 1st	18,422	20.7
2nd	19,565	20.6
Chemicals		
1974	8,891	18.5
1975	8,746	20.3
1974 1st qtr.	2,027	19.5
2nd	2,183	17.9
3rd	2,355	17.8
4th	2,332	18.9
1975 1st	2,336	19.8
2nd	2,097	19.3
3rd	2,080	21.1
4th	2,248	21.0
1976 1st	2,340	21.2
2nd	2,525	21.5
Nonelectric machinery		
1974	16,811	26.4
1975	21,088	27.5
1974 1st qtr.	3,639	25.8
2nd	3,987	26.5
3rd	4,434	26.3
4th	4,802	27.1
1975 1st	4,940	26.9
2nd	5,311	27.4
3rd	5,339	27.7
4th	5,504	28.1
1976 1st	5,344	26.6
2nd	5,550	27.2
Electric machinery		
1974	7,156	23.1
1975	7,771	22.6
1974 1st qtr.	1,606	23.0
2nd	1,743	22.6
3rd	1,925	23.8
4th	1,890	22.8
1975 1st	1,862	22.6
2nd	1,929	22.3
3rd	1,955	22.6
4th	2,021	22.7
1976 1st	2,171	22.3
2nd	2,328	23.8
Transport equipment		
1974	14,583	29.2
1975	17,281	28.1
1974 1st qtr.	3,153	30.2
2nd	3,522	27.7
3rd	3,697	28.8
4th	4,268	30.5
1975 1st	3,854	28.0
2nd	4,126	26.6
3rd	4,714	30.2
4th	4,673	27.6
1976 1st	4,028	23.5
2nd	4,621	25.1
Basic manufactures		
1974	11,490	12.3
1975	11,230	12.6
1974 1st qtr.	2,560	12.7
2nd	2,922	12.3
3rd	3,012	12.0
4th	3,012	12.2
1975 1st	2,835	12.1
2nd	2,747	12.0
3rd	2,791	12.8
4th	2,887	13.3
1976 1st	2,873	13.2
2nd	2,839	11.6
Miscellaneous manufactured articles		
1974	5,628	17.3
1975	6,002	17.6
1974 1st qtr.	1,288	17.5
2nd	1,468	17.8
3rd	1,438	17.0
4th	1,433	17.0
1975 1st	1,512	18.0
2nd	1,458	17.1
3rd	1,492	17.6
4th	1,547	17.8
1976 1st	1,666	18.4
2nd	1,702	17.9

Note: The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed food, fats, oils, firearms of war, and ammunition. World exports are defined as exports from the 15 major industrial countries. Percentage shares are based on values excluding shipments to the United States. These nations, which account for 80 percent of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan.

* Of world exports to foreign markets.

[1] Export-weighted exchange rate indexes are calculated for each supplier in each period, using official rates of exchange vis-a-vis 67 principal markets.

Germans Like 'Top-Of-Line' Recreational, Sports Goods

Just about everyone participating in the U.S. exhibition at SPOGA '76—a Cologne trade fair of sporting goods and camping equipment — confirmed that U.S.-made products are highly competitive in Europe, in both price and quality. More than $11 million in immediate and projected sales were registered during the event.

According to a sporting goods buyer from one of Frankfurt's largest department stores, the trend for Germans to buy at or near the "top-of-the-line" in recreational goods and sports wear and to purchase good quality items for their children will accelerate in the next few years. "The market for lower quality products should decline considerably during that period," he added.

In addition, Germans are often said to be ready and enthusiastic buyers of full sets of sports equipment—and they are likely to have the buying power to maintain this pattern.

Among the exhibited products considered to have the best sales potential were electronic chronometers, rangefinders, fishing rods and hooks, water skis, motorcycle helmets and accessories, hiking, climbing, and hunting boots, leisure wear specialties, athletic footwear, mineral metal detectors, high-intensity sports and marine lights, and light-weight bags, packs, and carriers. Technological superiority was claimed by exhibitors showing stop watches, wet suits, and top-of-the-line tennis racquets.

Buyers, importers, and trade visitors came from 74 countries. Compared with SPOGA '75, foreign attendance was up 29 percent and overall attendance, up 12 percent. This was the first time the U.S. Government has maintained a pavilion at this annual event. By closing time, 29 agent/distributor contracts had been signed and about 85 agreements were under negotiation. Because of the show's success, the United States expects to operate a pavilion at SPOGA '77 (Sept. 25-27), and 35 of this year's 38 exhibitors indicated that they would like to participate next year.

Energy Systems Seminar In Yugoslavia Presages Business For U.S. Firms

Growing Yugoslav industrial and consumer demands, coupled with the increasing costs of petroleum imports, have resulted in a rapidly expanding market for imports of energy equipment.

Twenty-two representatives of six leading U.S. manufacturers of electrical equipment recently conducted a seminar in Dubrovnik on energy systems, and they found substantial interest by the large Yugoslav audience. Some 110 representatives of 14 Yugoslav utilities and such major industries as shipbuilding, metalworking, electrical equipment and machine tools attended the three-day meeting.

Expansion of electric power capacity and domestic energy sources is one of Yugoslavia's top three development priorities. By 1980 the country hopes to more than double the capacity of its hydroelectric plants to 9,400 MW; thermo-electric plant capacity is likewise expected to be expanded. Overall, some 70 power plants, including a nuclear plant in Krsko, are planned or under construction. An estimated $4 billion will be invested, of which 20-25 percent will go to purchases of foreign equipment.

At the seminar, chaired by Edward Simmons of the Commerce Department's Office of Energy Programs, representatives of the U.S. firms presented technical papers on reversible pump/turbines, coal-fired steam generators, maximum reliability levels in large steam powerplants and the pressurized water reactor. Contacts with the Yugoslav firms are expected to result in extensive equipment sales as well as participation by U.S. companies in multi-million-dollar projects

MALAYSIA IN UPSWING AS EXPORTS POST GAINS

Led by substantial increases in its principal exports (rubber and tin), the Malaysian economy will finish 1976 in considerably better shape than 1975, according to W. Donn Heaney, Commercial Officer at the U.S. Embassy in Kuala Lumpur.

Through the first seven months of this year, Malaysian Government trade figures for Peninsular Malaysia (which exclude the States of Sabah and Sarawak) indicate a trade surplus of M$786.2 million (M$1 equals approximately U.S. $0.40). Exports are up a remarkable 33.9 percent to M$5,517.8 over the same period in 1975. Imports have risen at a more moderate rate of 14 percent, reaching M$4,749.6 million for the same period. With the pickup in personal incomes and with Malaysian industry beginning to bump up against capacity limitations, imports should show a steady improvement over the next 18 months.

Due to the effects of the worldwide recession, the Malaysian economy was essentially stagnant during most of 1975. While business activity, particularly in the export sector, began to increase in the fourth quarter, the economy as a whole only grew by 1.1 percent. Despite the last quarter surge, total exports declined about 10 percent from 1974 levels and imports by 11 percent. As the year closed, the improving economies of the developed countries began to exert a beneficial impact on Malaysia's exports, especially in the important areas of rubber, tin and timber. Of equal importance, the inflation rate declined from a disastrous 17.4 percent in 1974 to a more acceptable 5.2 percent in 1975.

In mid-1976, the government released the Third Malaysia Plan (1976-1980). The plan calls for a serious effort to reduce poverty. Unlike the previous plan, however, it looks to the private sector for the major contribution to growth in the economy. The private sector investment target is M$26.8 billion (U.S.$11.4 billion). The government plans on investing M$18.6 billion (U.S.$7.4 billion) through 1980. If realized, even in part, this level of public and private investment expenditures will provide American companies with substantial export opportunities for a wide range of goods and services.

Because of the pickup in the Malaysian economy and implementation of the plan, sales prospects for U.S. companies should be bright next year. This will be an improvement over 1975, which saw a reduction in the value of total Malaysian imports from 1974's M$9.8 billion to roughly M$8.5 billion and a corresponding drop in imports from the United States (from 1974's M$982.5 million to M$909.1 million in 1975).

Despite the drop in total value of U.S. exports to Malaysia, the U.S. market share, following the trend over the last several years, increased from 9.9 to 10.7 percent. This was the largest gain by any of Malaysia's trading partners and solidified the U.S. position as Malaysia's second most important supplier. Japan remained in the number one position, although its market share declined from 22.3 percent in 1974 to 20.1 percent in 1975. The United Kingdom remained in third place with 10 percent.

The biggest improvements in sales of American products in 1975 were registered in: electric power machinery (up 100 percent to M$129.4 million); other electric machinery (up 106 percent to M$61.8 million); office machines (up 83.9 percent to M$46.9 million); and telecommunication equipment (up 62.8 percent to M$14 million).

Sales of other machinery declined marginally, but remained an important market at $161.9 million. The same was true for sales of scientific and medical apparatus, which registered M$86.4 million. All of these areas will offer good sales prospects during the coming year. In addition, as the plan gears up, increased sales of building and construction equipment should materialize.

Possessed of a strong currency, excellent management of the economy and an absence of exchange controls, Malaysia is a country in which American traders have found a very positive and enthusiastic reception. The Malaysian business community is sophisticated and the government honest. American firms find that, although Malaysians are tough traders, they live up to terms after a contract is signed. Because of their long history as a trading nation, Malaysians understand world trade procedures, financing and documentation quite well.

Successful penetrators of the Malaysian market find, if they cannot set up their own office in-country, that the best guarantee of success is a reputable and aggressive local agent. Ideally, the agent will know something about the field before representing a firm. More importantly, he must be able to provide the all-important factor of after-sales service to the Malaysian business community. Firms wishing to conduct long-term sales to Malaysia are advised to locate a reputable local agent. The U.S. Embassy and Department of Commerce will be pleased to assist.

During the past few months, the U.S. Embassy and the Department of Commerce have jointly mounted the heaviest trade promotion effort ever undertaken by the United States in Malaysia. Events included a timber processing equipment trade mission, a trade show featuring building and construction equipment, food processing equipment and materials and handling equipment, and a fisheries equipment trade mission. In the near future, a technical sales seminar on minerals exploration and processing and a catalog show on building materials and equipment will be held.

LEADING INDICATOR IN MALAYSIA—*Increased exports of tin, along with rubber and timber, are fueling Malaysia's resurgence. Above, tons of tin awaiting shipment.*

World Trade Fair Schedule For 1977 Can Guide U.S. Exhibitors To Buyers

To assist U.S. business, *Commerce America* periodically publishes a schedule of future international fairs. These exhibitions range from the general type, which promote sales in numerous product categories, to the highly specialized fair, designed to attract buyers of specific products.

Events are listed by country, city, date, name and fair management address and are generally open to participation by any U.S. company in the related industry. Each firm may make arrangements for its own exhibit, including rental of space and utilities, transportation of products and setting up and manning of the booth.

For information on international trade fairs, please contact the foreign fair management at the listed address or write the Office of International Marketing, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230.

A listing of trade fairs in the United States appears on pages 32-35.

The following information on upcoming fairs is taken from the latest data available to the Department of Commerce. However, the Department cannot assume responsibility for accuracy of dates or for the outcome of any transactions with foreign fair managements.

Australia

Melbourne

All events will be held at Exhibition Buildings.

The initials REP used below indicate a recurring fair organizer address: Riddell Exhibition Promotions Pty. Ltd., 166 Albert Rd., South Melbourne, Victoria 3205.

March 10-19. Int'l Motor Show. Australian Automobile Dealers Assn., 464 St. Kilda Rd., Melbourne, Victoria 3004. Annual.

May 5-11. Caravan and Camping Show. Caravan Trade Industries Assn. of Victoria, 65 Wellington, St., Prahran, Victoria 3181. Annual.

May 18-22. Int'l Sailboat '77. REP. Annual.

July 3-10. Herald National Boat Show & Camping Display. REP. Annual.

July 25-30. Australian Int'l Engineering Exbn. Thomson Promotions Pty. Ltd., 49-51 Wellington St., Windsor, Victoria 3181. Annual.

Aug. 20-28. Sun News-Pictorial Int'l Homes Show. REP. Annual.

Sept. 6-8. Hardware Trade Fair. Hardware Retailers Assn., 13 Atherton Rd., Oakleigh, Victoria 3166. Annual.

Sept. 18-25. Sports, Hobbies, Arts and Crafts Exhn. REP. Annual.

Sept. 27-Oct. 2. Caravan and Camper Trailer Exbn. Caravan Trades Industries Assn. of Victoria, 65 Wellington St., Prahran, Victoria 3181. Biennial.

Oct. 10-13. Ist Int'l Hospital Equipment Exhn. REP.

Orange

Nov. 15-17. Australian National Field Days. Borenore, N.S.W. The Secretary, Australian National Field Days, P.O. Box 310, Orange, N.S.W 2800. Annual.

Sydney

Except where noted, shows are held at Sydney Showgrounds.

Jan. 28-Feb. 2. "Go '77"—Holiday and Travel Fair. Royal Agricultural Society, Box 4317, GPO, Sydney, N.S.W. 2001. Biennial.

March 6-9. Int'l Toy, Sporting Goods Trade Fair. Hilton Hotel and Centrepoint. The Organizers, ITSGTF, 3rd Floor, 93-95 Clarence St., Sydney, N.S.W. 2000.

May 6-11. Furniture Exbn. N.S.W. Guild of Furniture Manufacturers, 1 King St., Newtown, N.S.W. 2042. Annual.

June 17-22. National Caravan and Outdoor Living Show. RAS Showgrounds. Daniel and Cruickshank Ltd., 11 Clark St., Crows Nest, N.S.W. 2065. Annual.

July 19-23. Australian Int'l Education Exbn. Educare Exhibitions Pty. Ltd., 20 Bridge St., Sydney, N.S.W. 2000. Biennial.

Aug. 5-10. Sydney Int'l Boat Show. Daniel & Cruickshank Ltd., 11 Clark St., Crows Nest, N.S.W. 2065. Annual.

Aug. 15-20. Int'l Radio and Electronics Engineering Convention '77. University of Sydney. IREE Australia, ADC Bldg., 189 Kent St., Sydney, N.S.W. Biennial.

Aug. 19-27. Sydney Int'l Motor Show. Chamber of Automotive Industries, P.O. Box 311, Kings Cross, N.S.W. 2011.

Sept. 13-17. Environment '77. South Pacific Total Concept Exhibitions Pty. Ltd., 475 Pittwater Rd., Brookvale, N.S.W. 2100. Annual.

Austria

The following initials used below indicate recurring fair organizer addresses:

CFS = Contact-Fachmessen Salzburg Ges. m.b.H. & Co. KG., Suedtiroler Platz 11, Postfach 285, A-5024 Salzburg.

OB = Oesterreichisches Bauzentrum, Fuerstengasse 1. A-1090 Vienna.

WM = Wiener Messe A.G., Messeplatz 1, A-1071 Vienna.

Dornbirn

July 30-Aug. 7. 29th Dornbirn Fair. Investment and consumer goods. Fairgrounds Dornbirn. Export- und Mustermesse GmbH, Messestrasse 4, A-6850 Dornbirn. Annual.

Graz

April 30-May 8. Graz Spring Fair. Fairgrounds Graz, Styria. Grazer Suedost-Messe reg. GmbH, Messeplatz 1, A-8011 Graz. Annual.

Innsbruck

May 11-15. I-BAU (Int'l Construction Fair). Fairgrounds Innsbruck, Tyrol. OB. Biennial.

Salzburg

April 15-17. BWS (Int'l Expos. for Craftsmen). Ausstellungszentrum, Bessarabia Str. 100, Salzburg. CFS. Annual.

May 13-15. EXPO-SA (Int'l Jewelry Fair). Ausstellungszentrum, Bessarabia Str. 100, Salzburg. CFS. Annual.

Sept. 2-4. JIM-ER-ES (Int'l Young Fashion, Men's Fashion, Infants' Clothing). Ausstellungszentrum, Bessarabia Str. 100, Salzburg. CFS. Annual.

Sept. 16-18. OFSEA Int'l (Sporting Goods Fair). Ausstellungszentrum, Bessarabia Str. 100, Salzburg. CFS. Annual.

Tulln

March 25-27 and April 1-3. "Campa & Boot '77 (Camping & Boat Show). Fairgrounds Tulln. Tullner Messe, A-3430 Tulln. Semi-annual.

Vienna

March 9-13. Vienna Int'l Spring Fair. Fairgrounds, A-1020 Vienna. WM. Annual.

March 10-13 and Sept. 8-11. Lederwaren Exquisit (Leather Goods & Travel Accessories Show). Messepalast, A-1071 Vienna. WM. Semi-annual.

March 17-21. Sicherheit (Security World). Ausstellungszentrum Palais Liechenstein. Offerta GmbH & Co. KG., Fuertengasse 1, A-1090 Vienna. Biennial.

March 21-25. "Datenverarbeitung im europaeischen Raum" (Int'l Data Processing Congress). Hotel Hilton. Arbeitgemeinschaft fuer Datenverarbeitung, Trattnerhof, A-1010 Vienna. Biennial.

March 23-26. Praesenta '77 (Souvenirs & Gifts). Bauzentrum, Vienna. Offerta GmbH & Co. KG, Fuertsengasse 1, A-1090 Vienna. Annual.

March 27-29 and Sept. 25-27. Internationale Wiener Damenmodewoche (Int'l Ladies Fashion Fair). Messepalast, A-1071 Vienna. Fachverband der Bekleidungsindustrie Oesterreichs, Schwarzenbergplatz 4, A-1030 Vienna. Semi-annual.

May 11-14. IFABO '77. (Int'l Business Equipment Fair). Fairgrounds, A-1020 Vienna. WM. Annual.

Sept. 7-10. Airport '77 (Int'l Airport Construction and Equipment Exbn.). Rathaus/Town Hall. International Airport Expositions, 62/64 Victoria St., St. Albans, Herts. ALI 3XT England. Unique.

Sept. 7-11. Vienna Int'l Fall Fair. Fairgrounds, A-1020 Vienna. WM. Annual.

Oct. 4-9. HI-FI Fachausstellung '77 (Int'l HiFi and Stereo Equipment Show). Bauzentrum, Vienna. OB. Annual.

Nov. 3-6. Austro Boot (Int'l Boat Show). Stadthalle. Offerta GmbH & Co. KG, Fuerstengasse 1, A-1090 Vienna. Annual.

Wels

Feb. 3-6. TEX-BO '77 (Int'l Home Furnishings Fair). Fairgrounds Wels, Upper Austria. CFS Annual.

April 5-8. EUROPACK-IFL (Int'l Packaging Fair). Fairgrounds Wels, Upper Austria. CFS. Annual.

Belgium

Brussels

Jan. 9-13. HORESCA-COLLECTIRAMA. Material for hotels, restaurants and communities. Centre Int'l Rogier. Mrs. Ruysseveldt, rue Edouard Benes, 183, 1080 Brussels. Annual.

Feb. 11-20. BATIBOUW. Building equipment; and EUROCLIMA. Heating, refrigeration, air-conditioning. Palais du Centenaire. Sedos S.A., Chausée de la Hulpe 215, 1170 Brussels. Annual.

March 14-18. HORECOM. Material for hotels, restaurants, and communities; and EUROBEEF. Meat industry. Palais du Centenaire. CEMA S.P.R.L., rue du Progres 52, 1000 Brussels. Triennial.

March 30-April 5. INSTRURAMA 77. Laboratory instrumentation. Palais du Cen-

tenaire. U.D.I.A.S., avenue Slegers 203, 1200 Brussels. Triennial.
April 23-May 8. Brussels Commercial Fair. Palais du Centenaire. Foire Internationale de Bruxelles, Palais du Centenaire, 1020 Brussels. Annual.
May 22-26. EUROPLASTICA. Plastics Industry. Palais du Centenaire. International Jaarbeurs Ghent, Kortrijksesteenweg 640, 9000 Ghent. Every four years.
June 4-12. Exbn. of Environment Protection Techniques—INTERMAT. Civil engineering. Municipal equipment. Palais du Centenaire. Foire Int'l de Bruxelles, Palais du Centenaire, 1020 Brussels. Biennial.
Sept. 18-21. VESTIRAMA. Clothing exbn. Palais du Centenaire. Textirama, Maartelaarslaan 15, 9000 Ghent. Annual.
Sept. 20-23. AEROSOLS '77. Aerosol packaging. Palais du Centenaire. Foire Internationale de Bruxelles. Palais du Centenaire, 1020 Brussels. First time.
Oct. 2-5. Salon De La Quincaillerie et des Arts Menagers. Hardware and household articles. Center Int'l Rogier. Sogestor S.P.R.L., rue Duquesnoy 14, 1000 Brussels. Annual.
Oct. 8-22. Salon De L'Alimentation et des Arts Menagers. Food and related equipment. Palais du Centenaire. SIMPA S.A., Boulevard du Jardin Botanique 29, 1000 Brussels. Annual.
Oct. 20-27. Medical & Hospital Equipment Show. Centre Int'l Rogier. Edicomin, avenue du Roi 206, 1060 Brussels. Biennial.
Nov. 10-14. Furniture Show. Palais du Centenaire. Foire Internationale de Bruxelles. Annual.
Nov. 26-Dec. 4. Hobby '77. Do-it-yourself and hobby; and Salon Des Inventions. Inventions. Centre Int'l Rogier. Sogestor S.P.R.L., rue Duquesnoy 14, 1000 Brussels. Annual.
Nov. 28-Dec. 3. INTERELECTRONIC. Electronic equipment and accessories. Palais du Centenaire. F.A.I.R., avenue Moliere 74, 1060 Brussels. Biennial.

Ghent

Feb. 12-15. TEXTIRAMA. Textile and Clothing Fair. Fairgrounds. Textirama, Maartelaarslaan 15, 9000 Ghent. Annual.

Bulgaria

Plovdiv

All events are held at the Plovdiv Fairgrounds. Organizer: Chamber of Commerce & Industry, 11A Stamboliyski Blvd., Sofia.
June 6-12. Farming and Tobacco Machinery Exbn.
Sept. 3-10. Plovdiv Int'l Fair. Annual.
Nov. 1-8. Electronic & Electrical Devices, Engineering Products for Everyday Use.
November. Architectural & Artistic Layout Exbn.

Canada

Calgary

May 29-31. Furniture West. Big Four Bldg., Stampede Park. Manitoba Furniture Manufacturers Assn., Joseph Malko, Gen. Mgr., P.O. Box 164, Postal Station C, Winnipeg, Manitoba R3M 3S7. Annual.

Edmonton

March 21-26. Canadian Western Farm & Ranch Show. Sportex Bldg., Exhibition Grounds. Southex Exhibitions, #110, 330 9 Ave. S.W., Calgary, Alberta T2P 1K7. Annual.

Halifax

Aug. 31-Sept. 7. World Fishing Exbn. 1977. Exhibition Halls (Piers 20, 21, 22 Halifax Harbor). Industrial & Trade Fairs Ltd., Radcliffe House, Blenheim, CT., Solihull, West Midlands, England B91 2BG. Biennial.

Montreal

All events listed for Montreal are held annually at Exhibition Hall, write: Place Bonaventure, P.O. Box 1000, Montreal, Que.
Jan. 13-23. Montreal Auto Salon.
Jan. 28-30. Canadian Sporting Goods Show.
Feb. 5-9. Canadian Toy & Decoration Fair.
Feb. 13-15. Quebec Floor Covering Show.
Feb. 16-20. Int'l Travel Show.
Feb. 26-March 6. Boat Show.
March 13-16. Hotel & Restaurants Suppliers Show.
March 13-17. Montreal Spring Giftware Show.
March 25-April 3. Camping Show.
April 14-17. Montreal Int'l Book Fair.
June 19-23. Montreal Furniture Show.
June 30-July 5. Antique Show.
Aug. 21-25. Montreal Fall Gift Show.
Aug. 28-30. Canadian Int'l Footwear Exposition.
Sept. 11-14. Hardware Show.
Sept. 16-21. Men's Wear Show.
Oct. 13-16. Montreal Ski Show.
Nov. 3-6. Auto Sport Show.

Toronto

Jan. 30-Feb. 3. Toronto Spring Gift Show. Int'l Center. Edwin L. Kastner Show Productions Org. Ltd., 45 Charles St. E., Toronto M4Y 1S2. Annual.
Feb. 1-4. Canada Farm Show. Exbn. Park. Trans Canada Expositions Ltd., 20 Butterick Rd., Toronto M8W 3Z8. Annual.
Feb. 13-16. Canadian Hardware Show. Exbn. Park. Canadian Hardware Assn., 219 Merton St., Toronto M4S 1B2. Annual.
March 29-31. Canadian Premium Incentive Show & Conference, Int'l Center. Canadian Premium Incentive Show, 481 University Ave., Toronto M5W 1A7. Annual.
April 24-27. HOSTEX '77. Coliseum & Industry Bldg., Exbn. Park. Canadian Restaurant Assn., 94 Cumberland St., 8th Floor, Toronto M5R 1A3. Annual.
Aug. 7-11. Toronto Fall Gift Show. Int'l Center. Edwin L. Kastner Show Productions Org. Ltd., 45 Charles St. E., Toronto M4Y 1S2. Annual.
Oct. 4-6. Canadian Education Showplace. Exbn. Park. Canadian Education Showplace, 481 University Ave., Toronto M5W 1A7. Annual.
Oct. 12-19. Canadian Mining & Aggregates Equipment Exbn. Automotive Bldg. & Outdoor Arena, Exbn. Park. Southex Exhibitions, 1450 Don Mills Rd., Don Mills M3B 2X7. Biennial.
Oct. 17-19. Canadian National Packaging Exposition. Coliseum & Industry Bldg., Exbn. Park. Packaging Assn. of Canada, 45 Charles St. E., Toronto M4Y 1S2. Biennial.
Nov. 8-10. Canadian Computer Show. Int'l Center. Industrial & Trade Shows of Canada, 481 University Ave., Toronto M5W 1A7. Annual.
Nov. 9-11. Office Efficiency Show. Int'l Center. Industrial & Trade Shows of Canada, 481 University Ave., Toronto M5W 1A7.

Vancouver

Jan. 21-30. Vancouver Int'l Auto Show. Exbn. Park. Automobile Dealers Assn. of Greater Vancouver, 1037 W. Broadway, Vancouver, B.C. Annual.
Feb. 2-6. Vancouver Recreational Vehicle Show. Exbn. Park. TO-RO Enterprises Ltd., 263 Fell Street S., Burnaby, B.C. Annual.
Feb. 11-20. Vancouver Home Show. Exbn. Park. Southex (1970) Ltd., 2000 W. 12th St., Vancouver, B.C. Annual.
Feb. 25-March 6. Vancouver Boat and Sport Show. Exbn. Park. Harmon-O'Loughlin Enterprises Ltd., 263 S. Fell St., Burnaby, B.C. Annual.
March 20-22. Vancouver Spring Gift Show. Exbn. Park. Southex (1970) Ltd., 2000 West 12th Ave., Vancouver, B.C. Annual.
March 21-23. Vancouver Island Business Show. Empress Hotel. Victoria, B.C. Southex (1970) Ltd., 2000 West 12th Ave., Vancouver, B.C. Annual.
March 21-23. Food and Hospitality Show. Hotel Vancouver. Canadian Restaurant Assn., 4424 Main St., Vancouver, B.C. Annual.
Aug. 12-14. Abbotsford Int'l Air Show. Abbotsford Airfield. Abbotsford Int'l Airshow Inc., P.O. Box 361, Abbotsford, B.C. Annual.
September. Vancouver Floating Boat Show. Bayshore Marina, Bayshore Inn. Harmon-O'Loughlin Enterprises Ltd., 263 S. Fell St., Burnaby, B.C. Annual.
Nov. 15-17. Western Construction Materials & Equipment Show. Exbn. Park. Southex (1970) Ltd., 2000 West 12th Ave., Vancouver, B.C. Biennial.

Chile

Santiago

Oct. 27-Nov. 13. Feria Internacional de Santiago. Tenderini 187, Santiago.

China, People's Republic

Kwangchow (Canton)

April 15-May 15 and Oct. 15-Nov. 15. Kwangchow Export Commodities Fair. Semi-annual.

Cyprus

Nicosia

May 21-June 12. Second Cyprus Int'l Fair. Permanent site of the Cyprus State Fairs Authority.

Czechoslovakia

Bratislava

June 25-July 1. INCHEBA—Int'l Chemical Fair. Bratislava Fairgrounds. INCHEBA Pzo, 24, Drienova, 829 57 Bratislava. Annual.
Sept. 10-16. INTERSPORT 77—Int'l Exbn. of Sport Goods & Travel. Bratislava Fairgrounds, 829 57 Bratislava. Annual.

Brno

Fair organizer address: Brno Trade Fairs & Exhibitions, 1 Vystaviste, 602 00 Brno. Fairs are held at Brno Fairgrounds.
Feb. 16-23. SALIMA—Int'l Food Fair (food processing equipment). Annual.
Apr. 4-8. EMBAX-PRINT—Int'l Packaging & Printing Exbn. Biennial.
May 4-11. Int'l Consumer Goods Fair. Annual.
Sept. 14-22. Int'l Engineering Fair. Annual.
Oct. 23-28. INTECO—Int'l Catering Exbn. Biennial.
Oct. 23-28. ARBIEN—Int'l Window Dressing Exbn. Biennial.

Prague

Fair organizer: Write to Brno address above.
March 24-31. INTERKAMERA-77—Int'l Exbn. of Audio-Visual Technology & Materials. Biennial.
June 21-28. AUTOPROGRESS-77—Int'l Exbn. of Automotive Technology. Triennial.
Nov. 16-23. PRAGOTHERM—Int'l Heating and Air-conditioning Equipment Exbn. Annual.

Zilina

July 2-8. SYMPOMECH—Int'l Exbn. of Mechanized Equipment for Building Construction. SYMPOMECH, Psmas, Vaclavske Nam. 55, 116 79 Prague 1. Biennial.

Denmark

Copenhagen

The initials BC used below indicate a recurring fair organizer address: Bella Center A/S, Center Boulevard, DK-2300 Copenhagen S.

All fairs held in Bella Center Exhibition Hall.

Jan. 3-5. SCANDEFA '77 — Scandinavian Dental Fair and 43rd January Seminar of the Danish Dental Assn. BC. Annual.

Feb. 3-6. 12th Scandinavian Menswear Fair. BC. Semi-annual.

Feb. 19-27. The Scandinavian Building Exhibition. Byggecentrum, 19 Gyldenlovesgade, DK-1600 Copenhagen V. Biennial.

March 6-8. Scan Fair '77—Scandinavian Ironmongery and Hardware Fair. BC. Annual.

March 17-20. 23rd Scandinavian Fashion Week. BC. Semi-annual.

March 29-April 3. Int'l Food Fair '77. BC. Biennial.

April 18-22. KEM-TEK 4—Int'l Exbn. of Equipment for Chemical Process Industries. BC. Triennial.

April 28-May 1. Scandinavian Gold & Silver Fair '77. BC. Annual.

May 11-15. Scandinavian Furniture Fair. Assn. of Furniture Manufacturers, 8 Hellerupvej, DK-2900 Hellerup. Annual.

May 24-27. Hospital and Welfare '77. BC. Annual.

June 7-9. EURO COMM '77—Advanced Communications Technology Exbn. BC. First Time.

Aug. 28-30. 13th Scandinavian Menswear Fair. BC. Semi-annual.

Sept. 15-18. 24th Scandinavian Fashion Week. Scandinavian Clothing Council, 115 Vester Voldgade, DK-1552 Copenhagen V. Semi-annual.

Nov. 5-13. Copenhagen Int'l Boat Show. BC. Annual.

Herning

The initials HH used below indicate a recurring fair organizer address: Herning Hallen A/S, DK-7400 Herning.

All fairs held in Herning Exhibition Hall.

Jan. 25-29. AGROMEK '77—Int'l Exbn. for Agricultural Mechanization and Breeding Stock. Sponsored by various Danish agricultural associations. Secretariat: Holmetoften 35D, DK-8270 Hojbjerg. Annual.

May 25-30. Gift-O-Rama—Int'l Gift Fair. HH. First Time.

Aug. 18-21. Furniture Exbn. HH. Annual.

Sept. 6-10. HI-77—Industries Technical Fair. Int'l Innovation Exbn. MI-77—Pollution Control Exbn. HH. Biennial.

Sept. 20-22. Cable and Pipe Exbn. HH. First Time.

Nov. 2-4. SYMA '77—Machinery and Equipment for Apparel Industry. HH. Triennial.

Ecuador

Guayaquil

Sept. 30-Oct. 16. Int'l Fair of Ecuador. Ferias S.A., P.O. Box 4184, Guayaquil; Telex No. 04-33-49 Ferias Ed.

Egypt

Cairo

All events will be held at Cairo Int'l Fairgrounds, Gezira.

Jan. 26-Feb. 6. Book Fair. General Book Organization, Corniche El Nil St., Ramlet Boulak. Annual.

March 7-21. Cairo Int'l Fair. Director General, Cairo Int'l Fair, Exhibition Grounds, Gezira. Annual.

Oct. 1-28. Int'l Agricultural Exbn. Director General, Cairo Int'l Fair, Exhibition Grounds, Gezira.

Finland

Helsinki

All events will be held at Helsinki Fair Center. Write: Finnish Fair Corp., P.O. Box 24, SF-00521 Helsinki 52. Telex 121119 Fexpo SF. Cable: Finnexpo.

Feb. 11-20. Int'l Boat Show. Annual.

April 15-24. HABITARE 77. Household furnishings, HEPAC/building materials for individual homes, leisure time materials. Biennial.

Sept. 1-5. MAXPO 77. Earthmoving, construction, forest industry machinery. Biennial.

Sept. 20-24. Helsinki Int'l Technical Fair. Special emphasis theme: packaging and materials handling equipment. Finland's most important trade fair. Annual.

Oct. 18-21. ELKOM 77. Electronic components, production and test equipment, telecommunications and data processing equipment (excluding that for administrative uses). Annual.

France

Most trade fairs in France are represented in the United States by: Mr. Wagner, French Trade Shows, 1350 Avenue of the Americas, New York, N.Y. 10019.

Grenoble

March 5-8. Int'l Winter Sports Equipment Trade Show of Grenoble—ALPEXPO. Palais des Expositions. Salon Professionnel Internationel des Articles de Sports d'Hiver (S.I.G.), ALPEXPO, 38029 Grenoble Cedex.

Oct. 3-7. National Trade Exbn. of Antipollution Techniques—ALPEXPO. Salon National Professionnel des Techniques Antipollution STAP, ALPEXPO, 38029 Grenoble.

Lyon

Oct. 1-4. European Furnishing Market. Grand Palais. Marche Europeen de l'Ameublement et des Fournitures Professionnelles pour l'Ameublement MEUROPAM. Faure Brac, Palais des Congres Internationaux, Quai Achille-Lignon, 69459 Lyon.

Nancy

Oct. 10-14. Int'l Market for European Diffusion of Subcontracting. Strasbourg Marche International pour la Diffusion Europeenne de la Sous-traitance M.I.D.-E.S.T., B.P. 1593, 54027 Nancy Cedex. Attn: Mr. Detourbet.

Oyonnax

May 9-14. Int'l Optical Equipment Exbn. Salon International de la L netterie, de l'Optique Oculaire et du Materiel pour Opticiens SILMO 66, rue Anatole-France 01103, Oyonnax.

Paris

Except where noted, Paris shows are held at Parc des Expositions, Porte de Versailles.

Jan. 8-12. Int'l Carpet and Floor Coverings Exbn. Salon International du Tapis et des Revetements de Sols, Mr. Breton, 22 avenue Franklin D. Roosevelt, 75008 Paris. Annual.

Jan. 13-24. Int'l Pleasure Yachting Exbn., C.N.I.T., Palais de la Defense, Puteaux. Salon International de la Navigation de Plaisance, SPODEX, 12 rue Clapeyron, 75008 Paris.

Jan. 16-20. Int'l Jewelry, Gold and Silverware, Watches and Clocks, Gifts Exbn. Salon de la Bijouterie, Joaillerie, Orfevrerie, Horlogerie et Cadeaux (BIJORHCA), Chambre Syndicale, BOCI, 26, rue du Renard, 75004 Paris.

Jan. 24-30. Int'l Audiovisual and Communication Exbn. Salon International Audiovisuel et Communication (A.V.E.C.), Mr. Boissinot, 20, rue Hamelin, 75116 Paris.

Feb. 4-7. Int'l Professional Paper Industry Exbn. Salon International Professionnel de la Papeterie (SIPPA), Mr. Durrieu, 14, Boulevard Montmartre, 75009 Paris.

Feb. 5-8. European Men's Wear Show. Salon Europeen de l'Habillement Masculin (SEHM), M. Miserey, 8, rue de Richelieu, 75001 Paris.

Feb. 5-8. Int'l Knitwear Industries Exbn. Salon International des Industries de la Maille, Mr. Mangeret, 11, rue Anatole de la Forge, 75017 Paris.

Feb. 5-9. Int'l Candy, Chocolate, Biscuit Trade Exbn. Salon International de la Confiserie, Chocolaterie, Biscuiterie (INTERSUC) 48, avenue de Villiers, 75847 Paris Cedex 17.

Feb. 12-18. Int'l Toys and Games Exbn. Salon International du Jouet, Mr. Vuagnat, 93, rue de Turenne, 75003 Paris.

March 5-14. Int'l Arts of Home-Making Exbn., Puteaux, Palais de la Defense. Salon International des Arts Menagers, Mr. Breton, 15, avenue de la Division Leclerc, 92806 Puteaux.

March 6-13. Int'l Agriculture Show. Salon International de l'Agriculture, Mr. Couillens, 19 Boulevard Henri IV, 75004 Paris.

March 6-13. Leisure Power Cultivation and Gardening Show. Salon de la Motoculture de Plaisance-Jardinage. Mr. Jean, 24 rue du Pont, 92523 Neuilly-sur-Seine.

March 7-13. Int'l Audio Festival. Centre International de Paris, Porte Maillot. Festival International du Son, Mr. Boissinot, 20 rue Hamelin, 75116 Paris.

March 6-13. Int'l Agricultural Machinery Show. Salon International de la Machine Agricole, Mr. Jean, 24 rue du Pont, 92523 Neuilly-sur-Seine.

March 26-30. Int'l Ladies Ready-to-Wear Clothing Exbn. and Section Boutique. Salon International du Pret-A-Porter Feminin et Section Boutique, Mr. Lauriol, 69 rue de Richelieu, 75002 Paris.

March 31-April 6. Int'l Electronic Components Exbn. Salon International des Composants Electroniques, Mr. Boissinot, 20 rue Hamelin 75116 Paris.

May 9-14. Int'l "Surface Treatment and Industrial Finishing" Exbn., C.N.I.T. La Defense. Salon International "Traitements des Surfaces et Finition Industrielle," Mr. Ollive, 40 rue du Colisee, 75008 Paris.

June 3-9. Int'l Laundry, Dyeing and Dry-Cleaning Machinery Exbn. Salon International de l'Equipment, Blanchisserie, Teinturerie, Traitement et Recyclage Industriel des Eaux, Mr. de Champ, 21 rue Dautancourt, 75017 Paris.

June 3-12. Int'l Aeronautics and Space Show. Paris Le Bourget. Salon International de l'Aronautique et l'Espace, Mr. Dassault—Mr. Lafont, 4 rue Galilee, 75116 Paris.

June 6-11. Heating, Refrigerating and Air-Conditioning Exbn. Salon International du Chauffage, du Froid et de la Climatisation, INTERCLIMA, 7 rue Copernic, 75782 Paris Cedex 16.

June 20-25. Int'l Exbn. of Hydraulic, Pneumatic and Mechanical Transmissions and Components for Machine and Equip-

ment Construction. C.N.I.T. La Defense. MECANELEM Salon International des Transmissions Hydrauliques, Pneumatiques, Mecaniques, et des Composants de la Construction de Machine et Equipements, Mr. Ollive, 40 rue du Colisee, 75008 Paris.
Sept. 8-12. Int'l Leather Week. Semaine Internationale du Cuir, Mr. Boutevilain, 109, rue du Faubourg st-Honore, 75008 Paris.
Sept. 8-13. Jewelry, Gold and Silver, Clock-ware, Gift Week. Salon de la Bijouterie Joaillerie, Orfevrerie, Horlogerie, Cadeaux BIJORHCA, Mr. Bernhardt, 26, rue du Renard, 75004 Paris.
Sept. 10-13. European Men's Wear Show. Salon Europeen de l'Habillement Masculin S.E.H.M., Mr. Miserey, 8 rue de Richelieu, 75001 Paris.
Sept. 12-14. Professional and Int'l Show of Open Air Sports and Pastimes Articles. Salon Professionnel International des Articles de Sport et de Loisir de Plein Air S.I.S.EL., 12 rue Clapeyron, 75008 Paris. SPODEX.
Sept. 22-30. Int'l Exbn. of Data Processing of Communication and Office Organization C.N.I.T. Place de la Defense, Puteaux. Salon International de l'Informatique, de la Communication et de l'Organisation du Bureau, S.I.C.O.B., Mr. Hermieu, 6 place de Valois, 75001 Paris.
Sept. 25-28. Hardware Trade Show. Salon Professionnel de la Quincaillerie QUOJEM, Mr. Devos, 42 rue du Louvre, 7500 Paris.
Oct. 6-16. Cycle Exbn. Salon de l'Automobile du Cycle et du Motocycle, Mr. Charpin, 3 avenue du President-Wilson, 75016 Paris.
Oct. 7-16. Int'l Exbn. of Motor Maintenance and Car Accessories. Salon International des Industries d'Equipement et d'Entretien de l'Automobile, Equip'Auto, 7 rue Copernic, 75782 Paris Cedex 16.
Oct. 16-24. Int'l Exbn. Equip'hotel. Salon Technique International de l'Equipement et da la Gestion des Hotels Restaurants Cafes et Collectivites, Equip'Hotel, Mr. Willard, 13 rue de Liege, 75009 Paris.
Oct. 22-26. Int'l Ladies Ready-to-Wear Clothing Exbn. and Section Boutique. Salon International du Pret-A-Porter Feminin et Section Boutique, Mr. Lauriol, 69 rue de Richelieu, 75002 Paris
Nov. 6-11. Int'l Retail Trader Equipment Show. Salon International de l'Equipement des-Commerces et des Metiers, EQUIP'MAG, Mr. Devos, 42 rue de Louvre, 75001 Paris.
Nov. 24-Dec. 4. Int'l Building Exbn. Salon International de la Construction et des Industries du Second Oeuvre, BATIMAT, Mr. Le Prince, 1 avenue Niel, 75017 Paris.
Nov. 29-Dec. 4. Int'l Laboratory Exbn. Salon International du Laboratoire, Mrs. Brylinsky, 12 rue Chabanais, 75002 Paris.

German Democratic Republic

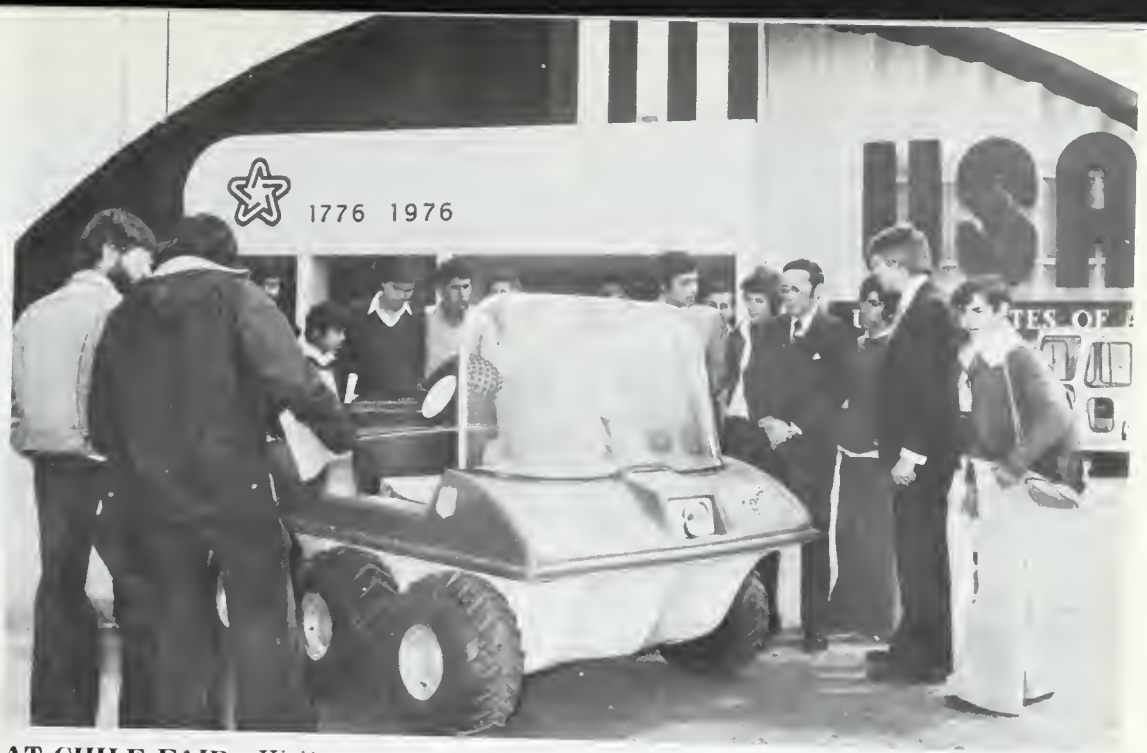
Leipzig

March 13-20 and Sept. 4-11. Leipzig Spring Fair and Fall Fair. Leipziger Messeamt, DDR-701, Postfach 720. Semi-annual.

Germany, Federal Republic of

Berlin

Berlin fairs are held at Municipal Fairgrounds. Sponsor is AMK Berlin, Ausstellungs-Messe-Kongress GmbH, D-1000 Berlin 19, Messedamm 22.
Jan. 28-Feb. 6. Int'l Green Week. Annual.
April 18-21. INTERCHIC.
May 10-19. Water Berlin 1977.
May 31-June 4. Int'l Pharmaceutical and Medico-Technical Exbn. Annual.



AT CHILE FAIR—*Visitors to the U.S. pavilion at the recent Santiago Int'l Fair were fascinated by "Puma Stalker," all-terrain vehicle of Ski-Tow Mfg. Co., Elkhart, Ind.*

Aug. 26-Sept. 4. Int'l Radio and TV Exbn.
Sept. 22-26. Overseas Import Fair. Annual.
Oct. 8-12. INTERCHIC.

Cologne

Fairs are held at the Cologne Fairgrounds. Sponsor is Messe-und Ausstellungs-GmbH., 5 Koeln 21, Postfach 210760.
Jan. 19-23. German Furniture Fair.
Jan. 31-Feb. 4. Int'l Sweets and Biscuits Fair. Annual.
Feb. 10-13. Int'l Fair for Household Appliances, Fittings, Components. Annual.
Feb. 12-14. Housewares Fair. Annual.
Feb. 13-15. Int'l Hardware Fair. Annual.
Feb. 27-March 1 and Aug. 21-23. Int'l Mens' Fashion Week. Semi-annual.
March 11-13 and Oct. 7-9. Int'l Fair for the Child. Semi-annual.
May 14-17. INTERZUM.
Sept. 10-15. ANUGA—World Food Market.
Sept. 25-27. SPOGA. Int'l trade fair for sports goods, camping equipment & garden furniture. Annual.
Sept. 25-27. Garden Trade Fair. Annual.
Oct. 12-15. Fifth Int'l Exbn. of Sports Facilities and Swimming Pools.

Duesseldorf

*Fairs are held at the Duesseldorf Fairgrounds. The initials DM indicate recurring fair organizer, sponsor and address: Duesseldorf Messegesellschaft mbH.-*NOWEA, *4 Duesseldorf 30, Postfach 320203.*
Jan. 22-30. Int'l Boat Show. DM. Annual.
Feb. 7-12. ENVITEC 77. DM.
March 13-16, April 24-28, Sept. 11-14 and Oct. 23-27. IGEDO. Fashion Fair. IGEDO-Internationale Modemesse GmbH, 4 Duesseldorf 30, Freiligrathstr. 28. 4 times a year.
March 26-28 and Sept. 24-26. Int'l Footwear Fair. DM. Semi-annual.
March 28-April 2. Int'l Dental Fair. DM.
May 14-17. OPTICA 77. DM.
June 3-16. DRUPA. DM.
Oct. 6-12. INTERKAMA 77. DM.
November. Industrial Safety Fair.

Essen

All shows held in Grugahalle. Sponsor and address for each: AMGE *Ausstellungs-und Messegesellschaft mbH., 43 Essen 1, Norbertstr. 56.*
Jan. 29-Feb. 6. DEUBAU 77.
March 2-7. Int'l Exhibit for Equestrian Sports.
Sept. 21-28. Int'l Welding Fair.
Oct. 8-16. Int'l Caravan Exbn. Annual.

Frankfurt

Fairs are held at the Frankfurt Fairgrounds. The initials MA indicate a recurring fair organizer, sponsor and address: Messe-und Ausstellungs-GmbH, 6000 Frankfurt Am Main 97, Postfach 970 126.
Jan. 12-16. Int'l Fair for Home Textiles and Household Textiles. MA. Annual.
Feb. 27-March 3. Frankfurt Int'l Spring Fair. MA. Annual.
Feb. 27-March 3. Spring Fair. MA. Annual.
March 23-27. Int'l Trade Fair—Sanitation, Heating, Air-conditioning. MA.
April 20-24. Int'l Fur Trade Fair. Frankfurter Rauchwaren - Messe - GmbH, 6 Frankfurt/Main, Bettinaplatz 1, Postfach 7787. Annual.
May 10-13. INTERSTOFF. Int'l Fair for Clothing Textiles—Spring. MA. Annual.
June 5-12. Int'l Meat Trades Fair. MA.
Aug. 28-31. Fall Fair. MA. Annual.
Oct. 12-17. Frankfurt Book Fair. Ausstellungs-und Messe-GmbH, des Boersenvereins des Deutchen Buchhandels, 6 Frankfurt/Main 1, Kleiner Hirschgraben 10-12, Postfach 2404. Annual.
Oct. 25-28. Office Equipment Exbn.
Nov. 22-25. INTERSTOFF. Int'l Fair for Clothing Textiles—Fall. MA. Annual.

Hamburg

Fairs are held at Hamburg Messe and Congress GmbH Fairgrounds. Write: 2 Hamburg 36, Jungiustrasse 18.
March 4-9. Int'l Fair for the Hotel, Catering and Bakery Trade.
Oct. 20-30. Int'l Boat Show.

Hanover

Write: Deutsche Messe-und Ausstellungs A.G., 3 Hanover 82, Messegelaende.
March 7-11. DIDACTA 77.
April 20-28. Hanover Fair. Annual.
May 18-24. LIGNA 77.
June 7-10. INTERHOSPITAL 77.
Sept. 20-29. European Machine Tool Show. Verrin Deutscher Werkzeng-Machinen fabriken, 6000 Frankfurt/Main, Cornelinstr. 4.

Munich

Fairs are held at the Munich Fairgrounds. The initials MA indicate a recurring fair organizer address: Meunchener Messe-und Ausstellungs-gesellschaft

mbH, D-8000 Munich L12, Postfach 12 10 09.
Feb. 5-13. Int'l Caravan and Boat Show. MA. Annual.
Feb. 12-15. INHORGENTA—Watches, Jewelry, Silverware. MA. Annual.
Feb. 24-27. ISPO—Sporting Goods. MA. Annual.
March 10-16. BAUMA—Building Machinery. MA.
March 26-April 3. Int'l Handicraft Fair. Gesellschaft Fuer Handwerksauss-tellungen und messen GmbH, D-8000 Munich 2, Theresienhoehe L14. Annual.
April 13-17 and Oct. 2-6. Int'l Fashion Week. Mode-Woche-Meunchen GmbH, D-8000 Munich 2, Theresienhoehe 15. Semi-annual.
May 7-15. Int'l Bakery Exhibit. Gesellschaft fuer Hand-Werksausstellungen und Messen, 8 Munich 2, Theresienhoehe.
June 20-24. Laser OPTOELECTRONICA. MA.
Sept. 9-16. Int'l Brewing Fair. MA.
Oct. 17-21. System 77. MA.
Nov. 4-10. Int'l Hotel and Catering Fair. MA.
Nov. 22-26. PRODUCTRONICA.

Nuremberg

Fairs are held at Nuremberg Fair Center.
Feb. 5-11. Int'l Toy Fair. Spielwarenmesse eg, D-85000 Nuremberg, Messezentrum. Annual.
April 1-4. Int'l Hunting and Fishing Equipment Fair. NMA Nuremberg Messe- und Ausstellungsgesellschaft GmbH, D-85000 Nuremberg, Messezentrum. Annual.

Offenbach

Feb. 26-March 2 and Aug. 27-31. Int'l Leather Goods Fair. Offenbach Fairgrounds. Offenbacher Messe-Gesellschaft GmbH, D-605 Offenbach am Main, Postfach 32. Semi-annual.

Stuttgart

June 9-12. Int'l Shutter and Blinds Trade Fair. Stuttgarter Ausstellungs GmbH, 7000 Stuttgart 1, Postfach 990, Am Kochenhof.

Greece

Athens

The initials HFC used below indicate a recurring fair organizer address: Hellenic Fashion Center, 50 Omirou St., Athens 135.
Jan. 24-28. XENIA 77. Tourism and hotel equipment. Zappeion Bldg. Greek Organization for Technological Exhibitions, 5 Kodrou St., Athens 119. Annual.
March 1-4. Fourth Int'l Shoe and Leather Fair. Caravel Hotel. HFC. Semi-annual.
July 16-19. Sixth Int'l Hellenic Fashion Fair. Caravel Hotel HFC. Semi-annual.
September (dates to be announced). Fifth Int'l Shoe and Leather Fair. Caravel Hotel. HFC. Semi-annual.
October (dates to be announced). INDEX 77. Mechanical equipment. Zappeion Bldg. Genor-A. G. Liakos Ltd., 55 Patr Ioakim St, Athens. Annual.

Thessaloniki

All events will be held at Thessaloniki Fairgrounds, write: Conseil Administratire de la Foire International de Thessaloniki, Thessaloniki.
Jan. 28-31. Fifth Int'l Hellenic Fashion Fair. Semi-annual.
April 17-24. Food, beverages and machines. Annual
May 14-18. Handicraft Exposition of EEC countries. Biennial.
June 5-12. Fifth Int'l Marble Fair. Annual
Sept 4-18 42nd Int'l Thessaloniki Fair. Annual

Guatemala

Guatemala City

Oct. 31-Nov. 13. INTERFER '77 — Guatemalan Int'l Fair. Comite Permnente de Exposiciones—COPEREX, Parque de la Industria, 8A, Calle 2-33, Zona 9 Biennial.

Hong Kong

April. Machinery Exbn. Hong Kong Productivity Center, Flat 4 A, Wai Yip Industrial Bldg., 171 Wai Yip St., Kwun Tong, Kowloon, L. T. Chan, Mgr.
July 8-12. Scientific Equipment Exbn. Federation of Hong Kong Industries, Industrial Bldg., 12th Fl., Unit A, 21 Ma Tau Wei Rd., Hung Hom, Kowloon, Richard Liu, Mgr.
Sept. 16-20. Office Equipment Exbn. Fed. of Hong Kong Industries, address above. T. W. Wong, Mgr.
November. Textile Machinery Exbn. Hong Kong Productivity Center, address above.
Dec. 9-13. Industrial Chemicals Exbn. Fed. of Hong Kong Industries, address above.

Hungary

Budapest

All events will be held at the Kobanya Fair Grounds. Write: HUNGEXPO, Foreign Trade Office for Fairs and Publicity, H-1441 Budapest, P.O. Box 44; telex, 22-4188.
April 15-20. AGROMASEXPO—Int'l Exbn. of Farm & Food Processing Machinery; LIMEXPO—Int'l Exbn. of Textiles; HUNGAROPLAST—Int'l Exbn. of Plastics; Autoservice Int'l Exbn.
May 18-24. 4th Budapest Int'l Spring Fair for Capital Goods.
Sept. 16-25. 4th Budapest Int'l Fall Fair for Consumer Goods.
Oct. 19-23. 3rd Int'l Exbn. of Industrial Electronics.
Oct. 19-25. Int'l Exbn. of Educational Equipment.

Iceland

Reykjavik

Aug. 26-Sept. 11. Home EXPO 77. Home furnishings.

Indonesia

Jakarta

June-July. Jakarta Trade Fair. Jakarta Fair Management, Lapungan Merdeka Monas, Jakarta. Annual.

Iran

Tehran

All events will be held at the Tehran Fairgrounds. Iran International Fairs & Exhibitions Corp., P.O. Box 33-32, Tajrish.
April 29-May 6. Construction Int'l Fair & Conf. Biennial.
June 10-17. Transport & Communications Int'l Fair.
Sept. 19-Oct. 1. Tehran Int'l Trade Fair. Annual.
Oct. 28-Nov. 4 Agriculture, Water & Food Exbn. Biennial.

Iraq

Baghdad

Oct. 1-15. Baghdad Int'l Fair.

Israel

Tel Aviv

April 28-May 14. Modern Living—Tel Aviv Int'l Trade Fair. Consumer goods. Fairgrounds. Annual.
June 8-15. Technology '77—Tel Aviv Int'l Trade Fair. Capital, industrial equipment; with seminar. Biennial.
Oct. 10-14. Third Int'l Hotel & Catering Exbn. Fairgrounds. Biennial.
Oct. 10-14. ACLIM '77—Int'l exbn. for building and construction; with seminar. Fairgrounds. Irregular.

Italy

Bari

Sept. 20-26. Fiera del Levante—Int'l Samples Fair. Includes AGRILEVANTE—Exbn. of Agriculture & Livestock Machinery & Equipment; EDILEVANTE—Int'l Fair of Materials & Equipment for Construction Industry. Ente Autonomo "Fiera del Levante," 70100 Bari. Annual.

Bologna

For Bologna fairs, contact: Angelo Nicoletti, Pres., Ente Autonomo per le Fiere di Bologna, Piazza Constituzione 6, 40128 Bologna.
Feb. 17-20; Sept. 15-18. MODAMAGLIA-MODAINTIMA—Knitwear-Underwear.
Apr. 21-25. COSMOPROF. Perfumery & cosmetics products; raw materials; costume jewelry; beauty parlor & hairdresser's furnishings & equipment; machinery & apparatus for chemical, cosmetics, pharmaceutical, foodstuffs industries. Annual.
May 28-June 6. Int'l Trade Fair of Bologna. Machine tools, tooling, hardware and accessories for small manufacturing industries and for handicraft activities. Annual.
Oct. 8-16. Int'l Exbn. of Building Industrialization. Materials, equipment, machinery, supplies, materials handling equipment, accessories and products for building and construction industries. Annual.

Florence

Jan. 30-Feb. 2; Sept. 3-6. PITTI BIMBO. Children's Fashion Wear. Palazzo degli Affari. Franco Tancredi, Centro di Firenze per la Moda Italiana, Via Faenza 109, 50123 Florence. Semi-annual.
Feb. 4-7. MAIT. Knitwear. Palazzo degli Affari. Contact: same as above. Annual.
Feb. 11-14; Sept. 16-19. PITTI UOMO. Men's Fashion Wear. Palazzo degli Affari. Contact: same as above. Semi-annual.
March 12-15. AUREA TRADE. Specialized exhibition of goldsmiths' handicraft. Palazzo degli Affari. Manifestazione Orafe Italiane, Via Tornabuoni 15, 50123 Florence. Annual.
March 20-23; Oct. 16-19. PITTI DONNA. Ladies' Fashion Wear & Accessories. Palazzo degli Affari, Palazzo Pitti, and Hotel Baglioni. Franco Tancredi, Centro di Firenze per la Moda Italiana, Via Faenza 109, 50123 Florence. Semi-annual.
Sept. 3-6. 17th Exbn. of Footwear, Handbags, Leather Goods, Leather Clothing & Accessories. Cesare Giannozzi, Exec. Mgr., Campionaria di Firenze, Via Valfonda 9, 50123 Florence. Annual.

Genoa

For fairs in Genoa, write: Fiera Internazionale di Genoa, Piazzale J. F. Kennedy, 16129 Genoa.
March 11-20. PRIMAVERA '77. 8th Int'l Novelty Gift-Fair; 8th World Travel & Holiday Show; 16th Int'l Caravan-Camping Exbn. Annual
Sept. 29-Oct. 2. EXPO-DENTAL '77. Int'l Exbn. of Dental Equipment & Supplies.
Nov. 12-20. TECNHOTEL—14th Int'l Exbn of Hotel Equipment and Promotion of Tourism. Annual

Milan

Jan. 28-Feb. 2; Sept. 8-12. CHI-BI-CAR Knick Knacks, Costume Jewelry & Giftware Show. CHI-BI-CAR, Via Monferrato 10, Milano. Salone Internazionale della Chincaglieria, Bigiotteria, Cartoleria e Articoli Regalo
Feb. 5-9. INTEL Int'l Electrical Engineering Exbn. Rassegna Internazionale

di Ingegneria-ANIE, Via Luciano Manara 1, Milano. Annual.
Feb. 12-16; Sept. 8-12. VACEF—Int'l Exbn. of Houseware, Glassware, Ceramics, Silverware, Giftware, Hardware & Tools. VIP-MACEF, Via Solferino 25, 20121 Milano. Semi-annual.
March 1-7. Int'l Heating, Air Conditioning, Refrigeration, Plumbing & Sanitary Equipment Exbn. & Conv. Mostra Convegno Internazionale Riscaldamento, Condizionamento, Refrigerazione, Idrosanitaria. Annual.
March 13-16. MIAS Int'l Sporting Goods Show. ASSOSPORT Mercato Internazionale dell'Articolo Sportivo. Via Petitti 16, Milano. Semi-annual.
March 25-27. COVIS-PEL—Int'l Furs Show. COMIS, Salone Internazionale della Pellicceria, Via Boccaccio 7, Milano. Annual.
Apr. 14-23. Int'l Samples Fair. LV, Fiera di Milano-Campionaria Internazionale, Ente Autonomo Fiera di Milano, Largo Domodossola, 1 Milano. Annual.
May 7-10. MIDO—Int'l Optics, Optometry & Opthalmology Exbn. VII Mostra Internazionale di Ottica Optometria. ANFAO, Via Petitti 16, Milan. Annual.
May 21-25. Star Int'l Carpets & Furnishing Fabrics Show. Salone Internazionale del Tappeto e del Tessile d'Abbigliamento. Star, Viale Monza 128, Milano. Annual.
Sept. 8-12. Int'l Music & High Fidelity Show. Salone Internazionale della Musica e High Fidelity, Via Vitruvio 38, Milano. Annual.
Sept. 24-29. SMAU '77 —Int'l Office Machinery, Furniture & Equipment Show. Salone Internazionale Macchine Mobile e Attrezzature per Ufficio. SMAU, Corso Venezia 47/43, Milano. Annual.
Oct. 3-9. IMPACK-IMA—Int'l Packing & Packaging, Materials Handling, Food Processing Equipment Show. IPACK-IMA, Via C. Ravizza 62, Milano. Biennial.
Oct. 9-11. MIAS '77—Int'l Sporting & Camping Articles Show. Salone Internazionale Campeggio Sport. ASSOSPORT, Via Petitti 16, Milano. Biennial.
Oct. 11-15. VAC '77—Int'l Chemical Equipment Show. Mostra Internazionale della Apparecchiature Chimiche e per Analist, MAC, Via Tiziano 19, Milano. Annual.

Rome

March 23-Apr. 3. Int'l Electronic, Nuclear, Television, Radio & Motion Picture Exbn. Rassegna Internazionale Elettronica, Via Crescenzio 9, 00193 Rome. Annual.

Turin

May 25-29. AUTOMOTOR '77—3rd Int'l Exbn. of Vehicle Maintenance & Repair Equipment, Parts & Accesories. Terza Mostra Mercato Internazionale Parti, Ricambi. Accessori e Attrezzature per Autofficina, Corso Galileo Ferraris 61, 10128 Turin. Biennial.
Sept. 6-12. CARAVAN EUROPA '77—3rd Int'l Exbn. of Trailers & Accessories. Terzo Salone Professionale Internazionale Caravan e Accessori, Corso Massimo d'Azeglio 15, 10126 Turin. Annual.
Sept. 24-Oct. 2. TECNICA '77—Int'l Technical Show. Equipment for machine tools, measuring and control instruments for laboratories and for industrial use, industrial application of electronics, electronics in business organization, technical books and periodicals. Salone Internazionale della Technica e della Montagna, Corso Massimo d'Azeglio 15, 10126 Turin. Annual.
Sept. 24-Oct. 2. MONTAGNA '77—Int'l Mountain Show. Training equipment for mountain army troops, air cable transportation, winter traffic vehicles & equipment, mountain aircraft. Salone Internazionale della Montagna, Corso Massimo d'Azeglio 15, 10126 Turin. Annual.
Sept. 24-Oct. 2. ELETTRONICA 4. 4th Int'l Industrial Electronic Exbn. Mostra Internazionale di Elettronica Industriale, Corso Massimo d'Azeglio 15, 10126 Turin. Triennial.
Nov. 5-12. Int'l Industrial Vehicle Show. Salone Internazionale del Veicolo Industriale, Corso Galileo Ferraris 61, 10128 Turin. Biennial.

Verona

Feb. 6-15. SAMOTER—Int'l Earth Moving and Building & Construction Machinery Exbn. Salone Internazionale Macchine per Movimento di Terra. Ente Autonomo per le Fiere di Verona, Piazzale delle Fiere, Verona. Annual.
March. Int'l Agricultural & Livestock Fair and Farm Machinery Exhibition. Ente Autonomo per le Fiere di Verona. Address above. Annual.
Oct. 22-26. EUROCARNE—Int'l Show of Technology for Meat Processing, Preserving & Distribution. Salone Internazionale delle Tecnologie per la Lavorazione, Conservazione e Distribuzione delle Carni. Ente Autonomo per le Fiere di Verona, address above. Annual.

Ivory Coast

Abidjan

May. SITHA '77. Int'l textile exbn. Hotel Ivoire. SITHA '77, Attn.: John Johnson, Centre Ivoirien du Commerce Extérieur. P.O. Box V68. Biennial.

Japan

Fukuoka

May 19-24. 17th Western Japan Machinery Exbn. Nishi Nihon Sogo Tenjijyo. Kyushu Industrial Management Assn., Chamber of Commerce and Industrial Bldg., 2-9-28, Hakata-ekimae, Hakata-ku, Fukuoka. Annual.
October. Western Japan Industrial Development Exbn. Kita Kyushu-shi Sogo Tenjijyo. Sponsor same as above.

Nagoya

All shows held in Nagoya Fukiage Hall.
May 26-30. Nagoya Int'l Metalworking Machines Exbn. The Industrial Daily News, 1-11, Takaoka-cho, Higashi-ku, Nagoya. Annual.
June 15-18. 22nd Business Machine Show. Chubu Office Mechanization Assn., Chukei Bldg., 1-24, Hijie-cho, Nakamura-ku, Nagoya. Annual.
October. 1977 Japan Machinery Fair; 1977 Japan Pollution Control Equipment Fair. Nagoya Trade Fair Assn., Nagoya Fukiage Hall, 18, Umahashiri, Chikusa-ku, Nagoya. Annual.
November. '77 Chubu Electronics Show. Chubu Electronics Shinkokai, 3-24, 6-Bancho, Atsuta-ku, Nagoya. Annual.

Osaka

Except where noted, events will be held at Osaka Int'l Trade Center, Minato Fairgrounds.
Feb. 24-26. Computer Terminals & Peripheral Equipment Exbn. Nippon Office Management Assn., Osaka Science Museum, 1-118, Utsubo, Nishi-ku, Osaka. Annual.
April 1-4. Scientific Instruments Show. Osaka Merchandise Mart Building. The Nihon Kogyo Shimbun Co., Ltd., 27, Umeda-cho, Kita-ku, Osaka. Biennial.
May 12-16. Osaka Int'l Metalworking Machines Exbn.; Osaka Mechanical Automation Show. The Industrial Daily News, 2-1, Kyobashi-Maeno-cho, Higashi-ku, Osaka. Annual.
Sept. 4-12. Osaka Int'l Environmental Pollution Control Exbn.; Osaka Industrial & Engineering Materials Exbn.; Osaka Engineering Design Efficiency Exbn.; Security & Safety Exhibition. Sponsor same as above. Annual.
October. Japan Electronics Show '77. Japan Electronics Show Assn., Dai-24 Mori Bldg., 3-23-5, Nishi-Shimbashi, Minato-ku, Tokyo. Annual.
November. Osaka Int'l Anti-Pollution Exbn.; Japan Resources Recyeling Exbn.; Security & Safety Exbn. The Nihon Kogyo Shimbun Co., Ltd., 1-7-2, Ohtemachi, Chiyoda-ku, Tokyo. Annual.

Tokyo

Except where noted, events will be held at Tokyo Int'l Trade Center, Harumi Fairgrounds.
Jan. 20-21. 52nd Tokyo Fashion Fair (TOYOREN). Tokyo Industrial Center, Ohtemachi Hall. Tokyo Fashion Union, Kiseifuku Kaikan, 2-4-9, Iwamoto-cho, Chiyoda-ku, Tokyo. Semi-annual.
Jan. 26-29 INTERNEPOON & Japan, '77. I.S.C.M. Japan, Kokado-Bldg., 1-3-18, Akasaka, Minato-ku, Tokyo. Annual.
March 2-5. 11th Self-Service Fair. Tokyo Oroshiuri Center. Japan Self-Service Assn., Tokyo Oroshiuri Center, 7-22-17, Nishi-Gotanda, Shinagawa-ku, Tokyo. Annual.
March 14-18. Tokyo Int'l Anti-Pollution Exbn.; Security & Safety Exbn.; Japan Resources Recycling Exbn. The Nihon Kogyo Shimbun Co., Ltd., 1-7-2, Ohtemachi, Chiyoda-ku, Tokyo. Annual.
March 14-18. '77 Int'l Hotel & Restaurant Show; '77 Int'l Food Exbn. Japan Management Assn., Kyoritsu Bldg., 3-1-22, Shiba-Koen, Minato-ku, Tokyo. Annual.
Late March. 3rd Int'l Ideal and Inventions Products Exbn. Tokyo Industrial Center, Ohtemachi Hall. The Japan Society for the Advancement of Inventions, The Society for the Advancement of Skill, 3-1-6, Iidabashi, Chiyoda-ku, Tokyo. Annual.
March 31-April 4. 16th Tokyo Int'l Boat Show. Japan Boating Industry Assn., Asano Bldg., 2-5-1, Ginza, Chuo-ku, Tokyo. Annual.
April 9-13. Japan Graphic Arts' Show. Insatsu Kizai Dantai Kyogikai, 3-21, Nishiki-cho, Kanda, Chiyoda-ku, Tokyo. Annual.
April 15-17. Japan Camping Show. Meiji Shrine Art Gallery's Plaza. Japan Autocamping Federation, New Ueno Bldg., 1-24, Yotsuya, Shinjuku-ku, Tokyo. Annual.
April 22-May 1. Tokyo Int'l Trade Fair. Tokyo Int'l Trade Fair Commission, 4-7-24, Harumi, Chuo-ku, Tokyo. Biennial.
May 11-12. 40th Tokyo Int'l Sports Goods Fair. Tokyo Sports Goods Wholesaler Assn., 5-8-6, Asakusabashi, Taito-ku, Tokyo. Semi-annual.
May 16-20. Automatic-Control and Instrumentation Exbn.; Automatic-Labor Saving Machines Exbn. The Industrial Daily News, 1-8-10, Kudan-Kita, Chiyoda-ku, Tokyo. Annual.
May 17-20. 16th Metal Finishing MET Show. Tokyo Industrial Center, Ohtemachi Hall. The Metal Finishing Society of Japan, Kyodo Bldg., 2, Kanda-Iwamoto-cho, Chiyoda-ku, Tokyo. Annual.
May 26-31. 52nd Business Show; '77 Int'l Modern Hospital Show. Nippon Office Management Assn., Seikyo Kaikan, 4-1-13, Sendagaya, Shibuya-ku, Tokyo. Annual.

June 15-18. JPCA Show '77. Japan Printed Circuit Assn., Yoshida Bldg., 21, Shiba-Kamiya-cho, Minato-ku, Tokyo. Annual.

June. 18th Screw Machine Fair; 8th Fastener Show. The Metal Industry News, 3-23-6, Nishi-Shimbashi, Minato-ku, Tokyo. Annual.

Mid-June. 5th Int'l Frozen Foods Industries Exbn.; '77 Int'l Mechanical Handling Exbn. Japan Management Assn., Kyoritsu Bldg., 3-1-22, Shiba-Koen, Minato-ku, Tokyo. Annual.

July 19-20. 53rd Tokyo Fashion Fair (TOYOREN). Tokyo Industrial Center, Ohtemachi Hall. Tokyo Fashion Union, Kiseifuku Kaikan, 2-4-9, Iwamoto-cho, Chiyoda-ku, Tokyo. Semi-annual.

Sept. 2-5. '77 Fluid Power Instruments Exbn. The Nihon Kogyo Shimbun Co., Ltd., 1-7-2, Ohtemachi, Chiyoda-ku, Tokyo. Biennial.

Sept. 6-9. 5th Mass-Merchandising Fair. Tokyo Oroshiuri Center, Shogyokai, 2-4-9, Azabudai, Minato-ku, Tokyo. Annual.

Sept. 12-16. Japan Pack '77. Japan Packaging Machinery Manufacturers' Assn., Dai-2 Nanoh Bldg., 2-20-1, Nishi-Shimbashi, Minato-ku, Tokyo. Biennial.

Sept. 26-30. '77 Int'l Heating, Air Conditioning and Sanitary Engineering Exbn. Japan Management Assn., Kyoritsu Bldg., 3-1-22, Shiba-Koen, Minato-ku, Tokyo. Annual.

Oct. 17-21. Tokyo Int'l Metalworking Machines Exbn.; Tokyo Metalforming Machines Exbn. The Industrial Daily News, 1-8-10, Kudan-Kita, Chiyoda-ku, Tokyo. Annual.

Oct. 28-Nov. 7. 22nd Tokyo Motor Show. Japan Motor Industrial Federation, Ohtemachi Bldg., 1-6-1, Ohtemachi, Chiyoda-ku, Tokyo. Biennial.

Late October. '77 Construction Equipment Exbn. Harumi Pier. Japan Construction Mechanization Assn., Kikai Shinko Kaikan, 3-5-8, Shiba-Koen, Minato-ku, Tokyo. Annual.

November. Micro System Show '77. Tokyo Oroshiuri Center. Japan Microphotography Assn., Kudo Bldg., 3-5, Kanda-Kajicho, Chiyoda-ku, Tokyo. Annual.

Nov. 11-12. 41st Tokyo Int'l Sports Goods Fair. Tokyo Sports Goods Wholesaler Assn., 5-8-6, Asakusabashi, Taito-ku, Tokyo. Semi-annual.

Kenya

Nairobi

Sept. 28-Oct. 2. Nairobi Int'l Show. Primarily agricultural, but some manufacturers, mostly those producing locally, exhibit products. Jamhuri Park. Agricultural Society of Kenya, P.O. Box 30176; Telex: AGRICSOC. Annual.

Korea

Seoul

Events will be held at Exhibition Hall.

April 7-May 12. Korea Trade Show. Korea Trade Promotion Corp. (KOTRA), 10-1, 2-KA, Hwehyun-Dong, Chung-Ku, Seoul 100.

June 1-20. Korea Machinery Exbn. Korean Society for the Advancement of Machine Industry, #1-643 Yoido-Dong, Yungdeungpo-Ku, Seoul 150.

October. 8th Korea Electronics Show. Fine Instruments Center, Guro Danji P.O. Box 27, Yungdeungpo-Ku, Seoul 150 (U.S. office: Room 636, Korea Center, 460 Park Ave., New York, N.Y. 10022; Tel 212-765-7310 7313) Annual.

Libya

Tripoli

March 1-20. Tripoli Int'l Fair. Int'l Fairgrounds. Saleh al-Azzabi, Chmn., General Corp. for Fairs and Touring, Ministry of Economy, P.O. Box 891. Annual.

Luxembourg

Write: Societe des Foires Internationales de Luxembourg SA, BP 110.

May 14-22. 30th (Spring) Int'l Fair. Kirchberg. Food products, beverages, household goods, leisure equip. Annual.
Oct. 8-16. 31st (Autumn) Int'l Fair. Kirchberg. Home and office furnishings and furniture, industrial equipment. Annual.

Mexico

Mexico City

Feb. 24-March 28. Feria del Hogar. Sports Palace. Ferias y Exposiciones, Lic. Enrique Navarro, Mgr.

April. Restaurant Suppliers Exbn. Reportes EFM, Emilio Ferstl Molina, Coordinator of Int'l Expositions.
July. Mexprint. Same sponsor as above.
November. Intermexpo. Manufacturing machinery. Sports Palace. Same sponsor as above.
Nov. 4. III Didactic Int'l American. Ferias y Exposiciones, Lic. Enrique Navarro, Mgr.

Morocco

Casablanca

April 28-May 15. Casablanca Int'l Fair. Commissariat General de la Foire Internationale de Casablanca, Prefecture de Casablanca. Biennial.

Netherlands

Amsterdam

The initials RAI indicate a recurring fair organizer address: R.A.I. Gebouw B.V., 8 Europaplein, Amsterdam.

Jan. 10-13. HORECAVA. Restaurant and institutional equipment exbn. RAI. Annual.
Feb. 10-20. PERSONENAUTO. Exbn. of passenger vehicles. Netherlands Assn. for Bicycle and Automotive Industry, 2 Europaplein, Amsterdam. Biennial.
March 4-13. HISWA. Int'l boat show. RAI. Annual.
March 30-April 5. AUTOVAK 77. Garage equipment, tools, automobile parts, accessories. RAI. Biennial.
April 15-24. 32nd Int'l Houschold Fair. Europaid BV, 94 Gerrit van der Veenstraat, Amsterdam-Z. Annual.
May 10-13. INTERCLEAN. Trade fair for industrial maintenance and cleaning, street-cleaning and garbage disposal. RAI. Biennial.
May 26-June 5. AMPHILEX. Int'l stamp-collectors exbn. RAI.
Sept. 21-29. HET INSTRUMENT. Scientific, medical and industrial instruments. Coop. Ver. Het Instrument, P.O. Box 152, Soest. Biennial.
Dec. 10-18. CARAVAN RAI 77. Int'l travel trailer, mobile home, parts and accessories exbn. RAI. Annual.

Rotterdam

Jan. 28-Feb. 6. CARAVAN AHOY 77. Intradex, 111 Hoogstraat, Rotterdam. Annual.
March 15-19. NEDEX. Exbn. for import, export and forwarding services. Europort BV, 44 Waalhaven Z, Rotterdam. Annual.
Sept. 6-10. ISOLATIE 77. Exbn of insulation materials. Intradex, 111 Hoogstraat, Rotterdam. Biennial.
Sept. 30-Oct. 9. FEMINA 30. Consumer products exbn. Rotterdams, Tentoonstellings Bureau, 700/207 Strevelsweg, Rotterdam. Annual

Oct. 18-22. HOUT 77. Lumber, lumber products and lumber processing equipment. Intradex, 111 Hoogstraat, Rotterdam. Annual.
Oct. 31-Nov. 2. SPOVAK. Int'l sport and camping goods exbn. 71 Thurledeweg, Rotterdam, Annual.
Nov. 15-19. EUROPORT 77. Int'l maritime exbn. Europort BV, 44 Waalhaven Z, Rotterdam. Annual.

Utrecht

The initials RNIF indicate a recurring fair organizer address: Royal Netherlands Industries Fair (RNIF), Jaarbeursplein, Utrecht.

Jan. 24-30. KARWEI 77. Do-it-yourself exbn. RNIF. Annual.
Jan. 24-30. KREATIEF 77. Exbn. for embroidery, knitting, sewing and other handicrafts. RNIF. Annual.
Jan. 26-30. VACANTIE 77. Tourism and recreation exbn. RNIF. Annual.
March 6-10. Int'l Spring Fair. Consumer products. RNIF. Annual.
March 6-10. WINKEL 77. Store fittings exbn. RNIF. Biennial.
March 20-22. Int'l Shoe Exbn. RNIF. Annual.
March 25-April 2. Building Exbn. RNIF. Triennial.
May 3-7. MEDICA. Int'l exbn. for hospitals and institutions. RNIF. Biennial.
Aug. 22-25. INDRO-PARFUMERIEBEURS. Exbn. of perfumes, cometics, toiletrics, sundries. RNIF. Annual.
Sept. 4-8. Int'l Autumn Fair for Consumer Products. RNIF. Annual.
Sept. 7-13. Int'l Furniture Fair. RNIF. Biennial.
Oct. 10-14. SECURITY 77. Security equipment exbn. RNIF. Biennial.

New Zealand

Auckland

March 28-31. National Footwear Fair. Mandalay Lounge, Newmarket. Footwear and components. Auckland Manufacturers' Assn., P.O. Box 28245, Remuera.
Aug. 19-29. New Zealand Int'l Trade Fair. Auckland Showgrounds, Epson. Capital equipment, and trade displays mounted on a national court concept. 1977 NZ International Trade Fair, P.O. Box 26,014, Epson.

Hamilton

Events are held at Mystery Creek, write: New Zealand National Fieldays Society, Inc., Private Bag, Hamilton.

Feb. 23-26. New Zealand Building Fieldays. Building and construction equipment.
June 16-18. New Zealand Agricultural Fieldays. Agricultural equipment and materials.
Nov. 3-5. New Zealand Transport Fieldays. All transport modes, wheels, water and wings.

Nicaragua

Granada

April (tentatively the final week). Expica '77. Granada Fairgrounds. Exposicion Pecuaria de Centroamerica, Apartado Postal 1193, Managua; Attn: Ernesto Salazar. Annual, rotates among the five Central American countries as well as Panama.

Nigeria

Lagos

November or December. Int'l Trade Fair. To be held at new international fair complex now under construction.

Norway

Oslo

Jan. 27-Feb. 1. CARAVAN '77. Sjolyst. Norges

Caravan Produsenters og Importorers Forening, c/o Arne Chr. Knudsen, Caravans International Norge A/S, P.O. Box 92, 3051 Mjondalen. Annual.
April 15-24. The Sea For All. Boats and equipment. Sjolyst. Norske Batbyggeriers Landsforening and Motorimportorenes Landsforening, H.r.adv. G. Wiese, Stortingsgt. 12, Oslo 1. Annual.
April 29-May 4. Road and Construction. Oslo Ulleval Stadion. Int'l exbn. of machines and technical equipment for construction and maintenance of roads. Maskingrossisternes Landsforening Drammensvn. 30, Oslo 2. Annual.
Sept. 5-14. NOR-SHIPPING '77. Int'l shipping exbn. Special trade fair. Norges Varemesse, P.O. Box 130, Skoyen, Oslo 2. Annual.
Sept. 22-Oct. 2. BYGG REIS DEG. Building equipment exbn. Open to the public. Bygningsartikel-Grossisternes Forening, Grensen, Oslo 1. Annual.
Oct. 25-29. Chemical Engineering Automatica '77. Norsk Senter for Informatikk in cooperation with Norges Varemesse, P.O. Box 130, Skoyen Oslo 2. Annual.

Paraguay

Mariano Roque Alonso

June/October. Second Int'l Exposition of Livestock, Industry and Commerce. Asociacion Rural del Paraguay, Calle Antequera 651, Asuncion. Biennial.

Peru

Lima

Nov. 16-27. 10th Pacific Int'l Trade Fair. Fairgrounds. Ferial Internacional del Pacifico, P.O. Box 4900, Lima; or, Ave. La Marina S/N, Lima 32, attn. Guillermo Ferreyros.

Poland

Poznan

For all events listed, write: Poznan Fair Management, Glogowska St. 14, 60-374, Poznan.
April 20-24. CHEMIA—Int'l Chemical Trade Fair.
June 12-21. Poznan Int'l Trade Fair—general industrial. Annual.
Oct. 16-23. TAROPAK—Int'l Packing, Storage, & Handling Trade Fair. Biennial.
Oct. 16-23. POLIGRAFIA—Int'l Printing & Graphics Trade Fair.
Oct. 16-23. FOTOKINOTECHNIKA—Int'l Photography & Cinematography Trade Fair.

Portugal

Lisbon

May 27-June 7. FIL—18th Int'l Fair. Annual.

Tomar

October. 4th Wood Show, annual; 5th Industrial Poultry Raising Show, annual.

Oporto

Apr. 15-24. 4th Building Materials Show. Annual.
May 6-15. 2nd Export—IMAJUDE (children's clothing).
Oct. 21-30. 4th Food Show. Annual.

Vila Franca de Xira

May. Industrial & Agricultural Show. Annual.

Vizeu

September. St. Mathews Show (handicrafts). Annual.

Romania

Bucharest

Fair organizer: Enterprise for Fairs & Expositions, Remus Brad. Dir., Piata Scinteii NR 1, Bucharest.
May 7-14. TIBCO—Consumer Goods & Chemical Expos. Fairgrounds. Annual.
Oct. 15-24. TECHNOEXPORT—Technical Expos. of Equipment & Products in Agriculture, Packaging, Forestry.

Saudi Arabia

Jidda

March 15-29. Third Saudi Int'l Trade & Industry Fair. Jidda Int'l Airport. Saudi Int'l Trade & Industry Fair Organization, P.O. Box 4571, Jidda. Cable address: KAZADYOU. Annual.

Senegal

Dakar

Feb. 16-22. African Fisheries Exbn. & Congress. Chamber of Commerce, BP 118, Dakar.
Dec. 1-7. Exbn. of Agricultural & Hydro Equipment. Address above.

Singapore

Singapore

Feb. 23-26. SEATEC '77—Exbn. & Conf. Hyatt Hotel. INTEC Press Ltd., 3 Station Parade, Whyteleafe Surrey, CR3 OEH, England.
June 4-12. Home Show. Hyatt Hotel. Singapore Home Show, 6-E Mount Sophia, Singapore 9.
June 17-22. Int'l Boat Show. Nat'l Stadium. Peter Daniel & Co. Pty., Suite 202, 11 Clarke St., Crows Nest, N.S.W. 2065, Australia; Singapore office, Int'l Fair Promotion & Marketing Services Pte. Ltd., Factory No. 4, 51-A Kampong Bugis, Singapore 12.
July 20-24. 3rd Int'l Exbn. of Sports Equipment & Leisure Goods—SPOREX 77. National Stadium. Int'l Fair Promotion & Marketing Services, address above.
Sept. 7-10. Asian Business Expo Exbn. & Conf.—ABEX '77. Hyatt Hotel. Industrial & Scientific Conf. Management, Suite 1409, High St. Centre, North Bridge Road, Singapore 6.
Oct. 5-9. Int'l Exbn. of Materials Handling & Construction Machinery—IMAC '77. Nat'l Stadium. Int'l Fair Promotion & Marketing Services, address above.
Nov. 7-11. MACHINE ASIA—South East Asian Production Machinery & Industrial Development Exbn. & Conf. Hyatt Hotel. Machine Asia, 6-E Mount Sophia, Singapore 9.

South Africa

The initials SE indicate a recurring fair organizer address: Specialized Exhibitions, A. W. Brown, Mng. Dir., Lawson's Corner, Jorissen St. 2001, P.O. Box 2900, Johannesburg 2000.

Cape Town

April 28-May. CAPEBUILD—Cape Building and Construction Exbn. Cape Showgrounds. SE.

Johannesburg

April 25-May 7. Rand Show. Milner Park. Witwatersrand Agricultural Society, E. J. Viljoen, Gen. Mgr., Milner Park, P.O. Box 31777, Braamfontein 2017.
June 13-17. Hotel and Catering Show. Milner Park. SE.
July 19-31. Home Goods Retailing. Home furnishings, housewares, furniture, electrical domestic appliances. Milner Park. Westbourne McLean and Hunter, Roger Clive-Smith, Exbn. Mgr., Nedbank East City, 120 End St., Johannesburg 2001, P.O. Box 6110, Johannesburg 2000.
Aug. 29-Sept. 2. PARKPROCESS—Int'l Packaging and Food Processing Exbn. Milner Park. SE.
Oct. 6-10. Aviation Africa. Int'l aviation exbn. and air display. Lanseria Airport. SE.
Oct. 17-21. Machine Tool and Production Engineering Show. Milner Park. Westbourne McLean and Hunter, Roger Clive-Smith, Exbn. Mgr., Nedbank East City, 120 End St., Johannesburg 2001, P.O. Box 6110, Johannesburg 2000.

Spain

Barcelona

Organizers of Barcelona events: Feria Internacional de Muestras, Avda. Maria Cristina s/n, Barcelona 4.
Jan. 12-16. 15th Int'l Nautical & Sports Salon.
Feb. 19-27. EXPOMATEX '77—8th Int'l & Technical Textile Machinery Fair.
April 23-May 3. Int'l Automobile Show.
June 1-10. 45th Int'l General Trade Fair.
Oct. 1-9. SONIMAG '15—Int'l Image, Sound, and Electronic Salon.
Oct. 22-30. HOGARHOTEL '77—National Home, Decoration, and Gastronomy Salon & Int'l Hotel Equipment Exbn.
Nov. 1-10. Barcelona Int'l Trade Fair.
Nov. 25-Dec. 2. EXPO-AVICOLA '77—Professional & Int'l Salon of Poultry and Cattle Production.

Bilbao

Organizers: Feria Internacional de Bilboa Apartado n° 468, Bilbao 13.
March 1-6. ELA—Int'l Monographic Fair of the Electrical, Electronic and Automatization Industries.
June 20-26. 2nd Int'l Monographic Steel Industries Fair.
June 20-26. 2nd Int'l Monographic Pollution Control Fair.

Elda (Alicante)

March 8-12 and Sept. 12-16. FICIA—16th Int'l Shoe & Related Industries Fairs. Fall and winter fashions, and spring and summer fashions. FICIA, Avda. Chapi s/n, Elda, Alicante. Semi-annual.

Madrid

April 21-May 1. FICOP—7th Int'l Construction and Pubile Works Fair. Feria Internacional del Campo, Avda. de Portugal s/n, Madrid 11.
Nov. 17-25. SIMO—17th Int'l Office and EDP Equipment Fair. CITEMA, Plaza Conde Valle Suchil 8, Madrid 15.

Murcia

Oct. 20-30. Int'l Canning Machinery Salon. N/A Recinto Feria Vistabella. Murcia.

Seville

April 15-24. 17th Iberoamerican General Trade Fair (For Latin American countries only). Iberia de Muestras Iberoamericana, Apartado n° 8016, Seville.

Valencia

Organizers: Feria Internacional de Muestras, Apartado n° 476, Valencia.
Feb. 19-25. 16th Int'l Toy Fair.
March 26-April 2. 12th Int'l Metal Arts Fair.
April 30-May 8. 55th Int'l General Trade Fair.
Sept. 15-18. 11th Int'l Fashion and Children's Wear Fair.
Sept. 25-Oct. 2. MAICOP '77—1st Int'l Monographic Confectionary and Bakery Fair.
Sept. 25-Oct. 2. EXPOCARNE '77—1st Int'l Industries Fair.
Oct. 17-23. 13th Int'l Furniture Fair.

Zaragoza

March 26-April 3. FIMA—11th Int'l Farm Machinery Fair. Feria Nacional y Oficial de Muestras, Palacio Ferial, Zaragoza.

Surinam

Paramaribo

October (tentative). Int'l Trade Fair. Biennial.

Sweden

Goteborg

Write: Swedish Trade Fair, Box 5222, S-402 24 Goteborg; Telex 20600.

Jan. 19-23. Scandinavian Lighting Fair. Annual.

Feb. 4-13. Int'l Swedish Boat Show. Annual.

March 9-13. SCANPLAST — Int'l Plastics Fair. Periodic.

March 30-April 3. Auto, Motor, Workshop, Service Station and Garage Equipment. Biennial.

April 19-24. ISM—Industrial Goods Exbn. Annual.

Sept. 17-25. Int'l Consumer Goods Fair. Annual.

Sept. 23-27. Floating Boat Show. Annual.

Oct. 11-15. Int'l Electrotechnical Trade Fair. Biennial.

Oct. 26-29. Education and Training Equipment Exbn. Biennial.

Jonkoping

Sept. 12-16. Working Environment 77. Elmia, Box 6066, S-550 06 Jonkoping; Telex 70164. Triennial.

Malmo

Write: Skanemassan, Box 19015, S-200 73 Malmo; Telex 32256.

Aug. 19-28. 59th Int'l Scania Trade Fair. Consumer goods. Annual.

Sept. 25-28. Cleaning Techniques and Flooring Trade Fair. Triennial.

Oct. 11-14. Int'l Hotel, Restaurant and Catering Fair. Biennial.

Stockholm

Write: Stockholm International Fair, S-106 80 Stockholm; Telex 10660.

Jan. 21-30. Build and Rebuild Your Home. Annual.

Feb. 10-13. National Swedish Furniture Fair. Annual.

Feb. 24-March 6. Stockholm Int'l Boat Show. Annual.

April 19-22. Materials Handling. Triennial.

May 10-13. Int'l Protection Fair. Periodic.

Sept. 2-11. Int'l Consumer Goods Fair. Annual.

Oct. 6-12. Stockholm Technical Fair. Annual.

Nov. 17-19. Swedish Dental Society's National Congress with Int'l Trade Fair. Annual.

Nov. 30-Dec. 3. Annual General Meeting of the Swedish Society of Medical Sciences with Medical Int'l Trade Fair. Annual.

Switzerland

Basel

Fairs are held at Basel fairgrounds.

Jan. 27-Feb. 1. SWISSBAU—Swiss building trade fair (building equipment and materials). Sekretariat Schweizer Baufachmesse, Postfach, 4021 Basel. Triennial.

April 16-25. Swiss Industries Fair (Mustermesse), with European Watch, Clock & Jewelry Fair. (Participation in Swiss Industries Fair only through Swiss representatives.) Schweizer Mustermesse, Postfach, 4021 Basel. Annual.

April 16-25. European Watch, Clock, and Jewelry Fair (within Swiss Industries Fair—see above). Sekretariat Europaeische Uhren-und Schmuckmesse, Postfach, 4021 Basel. Annual.

May 14-22. Das Tier und Wir (Animal and Man). International information show and conference. Sekretariat Das Tier und Wir, Postfach, 4021 Basel. Annual.

May 24-27. SWISSPACK. Int'l Packaging Exbn. Sekretariat SWISSPACK, Postfach, 4021 Basel. Every two to three years.

June 14-18. PRO AQUA-PRO VITA. Int'l Exbn. for Environmental Sanitation—Water, Waste-water, Air, Refuse, Noise. Sekretariat PRO AQUA-PRO VITA, Postfach, 4021 Basel. Triennial.

Sept. 6-10. INELTEC. Exbn. & Conf. for Industrial Electronics and Electrotechnics (includes process controls). Sekretariat INELTEC,Postfach, 4021 Basel. Biennial.

Nov. 17-23. IGEHO. Int'l Exbn. (with conf.) for Industrial and Institutional Catering, Hotels, and Restaurants. Sekretariat IGEHO, Postfach, 4021 Basel. Biennial.

Bern

Sept. 20-25. SAMA INTERNATIONAL 77. Int'l Exbn. (with conf.) for Miniaturized Automation (includes production equipment and instruments for watch industry). Bern fairgrounds. SAMA, Postfach 1052, 2501 Biel. Annual.

Oct. 9-11. BESPO 77. Summer Sports & Textile Fair. Bern fairgrounds. Aussteller Genossenschaft BEA Bern, Postfach 1009, 3001 Bern. Annual.

Geneva

Fairs are held at Geneva fairgrounds.

Feb. 4-13. Int'l Boat & Leisure Show. Salon du Nautisme et du Plein Air, Case Postale 65, 1211 Geneva 4. Biennial.

March 17-27. Int'l Motor Show (automobiles). Salon International de l'Automobile, Case Postale 65, 1211 Geneva 4. Annual.

May 24-26. Int'l Microcomputers, Minicomputers, & Microprocessors Exbn. & Conf. Industrial & Scientific Conference Management, Inc., 22 West Adams St., Chicago, Ill. 60606. First time; frequency not yet established.

Nov. 25-Dec. 4. Int'l Exbn. of Inventions & New Techniques. PROMEX S.A., Salon des Inventions, 22 Rue du Mont-Blanc, 1201 Geneva. Annual.

Montreux

April 25-29. Int'l Direct Marketing & Mail Order Symposium & Merchandise, Service & Idea Exchange Exbn. Palais des Congres, Montreux. EDMA, Postfach, Forchstrasse 84, 8032 Zurich. Annual.

June 3-10. Int'l Television Symposium & Technical Exbn. Palais des Congres, Montreux. Int'l Television Symposium & Exbn., Case Postale 97, 1820 Montreux. Biennial.

St. Gall

June 10-14. KOPANTIQUA. Int'l Trade Fair of Copied Antiques (antique furniture reproductions). St. Gall fairgrounds. INTEXPO, Museumstrasse 1, 9004 St. Gall. Biennial.

Zurich

Fairs are held at Zurich fairgrounds.

March 27-30. SWISSPO. Swiss Buyers' Week for Winter Sporting Goods. (Participation through Swiss representatives.) M. W. Lanz, 67 Chemin de la Montagne, 1224 Chene-Bougeries. Annual.

June 14-18. IFAS. Int'l Trade Fair for Medical Supplies. Arbeitsgemeinschaft fuer Fachmessen AG, Hofackerstrasse 36, 8032 Zurich. Biennial.

Aug. 24-29. FERA. Radio & Television Exhibition. (Participation through Swiss representatives.) Fera-Komitee, Postfach 160, 8047 Zurich. Annual.

Sept. 6-10. BUEFA. Swiss Office Equipment Exbn. (Participation through Swiss representatives.) Schweiz. Buerofachverband, Rudishaldenstrasse 27, 8800 Thalwil. Biennial.

Oct. 27-29. SEMICON EUROPA 77. Specialized Trade Fair & Conf. on Semi-conductors, Production Equipment, & Materials. Zuespa, Thurgauerstrasse 7, 8050 Zurich. (In U.S.: SEMICON, Golden Gate Enterprises, Inc., 1333 Lawrence Expressway, Santa Clara, Calif. 99501.) Annual.

Nov. 2-6. FSS. Exbn. for Swimming Pools & Sporting Equipment. Arbeitsgemeinshaft fuer Fachmessen AG, Hofackerstrasse 36, 8032 Zurich. Biennial.

Nov. 14-19. MICROTECNIC 77. Int'l Exbn. for High Precision Techniques, Dimensional Measurement, & Control. AGIFA Fachmessen GmbH, Postfach 257, 8033 Zurich. Biennial.

Tanzania

Dar es Salaam

August (tentative). Int'l Fair. Principal Secretary, Ministry of Trade, P.O. Box 9503, Dar es Salaam (Attn: A. H. Chale).

Turkey

Izmir

Aug. 20-Sept. 20. Izmir Int'l Fair. Izmir Enternasyonal Fuari ve Turizm Mudurlugu, Izmir. Attn: Cumhur Guruz, Director of Fair. Annual.

United Kingdom

The initials ITF used below indicate a recurring fair organizer address: Industrial & Trade Fairs Ltd., Radcliffe House, Blenheim Ct., Solihull, B91 2BG.

Aberdeen

Sept. 13-16. Offshore Europe Exbn. & Conference. Bridge of Don Showground. Offshore Europe '77, Rowe House, 55-59 Fife Rd., Kingston-upon-Thames, Surrey KTL 1TA. Biennial.

Birmingham

All events will be held at National Exhibition Center.

Feb. 6-10. Int'l Spring Fair. Giftware section: Trade Promotion Services, Exhibition House, Warren Lane, London SE18 6BW. Hardware section: British Hardware Promotion Council Ltd., Turrent House, Station Rd., Amersham, Bucks HP7 OBA. Annual.

March 7-11. LABEX Int'l. Laboratory apparatus and materials. ITF. Biennial.

March 14-16. PAKEX—Int'l Packaging Exbn. ITF. Biennial.

March 28-April 1. Engineering Inspection and Quality Control Exbn.—INSPEX. BCE (Inspex) Ltd., 153 St. Paul's Wood Hill, Orpington, Kent BR5 2SR. Biennial.

April 24-30. Int'l Food Manufacturing and Processing Machinery Exbn. Exhibitions for Industry Ltd., 157 Station Rd. East, Oxted, RH8 OQF, Surrey. Biennial.

April 28-May 6. Foundry Exbn. Industrial Newspapers Ltd., Queensway House, 2 Queensway, Redhill, Surrey. Every 8 years.

May 16-21. Int'l Mechanical Handling Exbn. ITF. Biennial.

May 24-27. Int'l Domestic Electrical Appliances Exbn. Montbuild Ltd., 11 Manchester Sq., London W1M 5AB. Annual.

June 20-24. Chemical and Process Engineering Show—EUROCHEM Clapp and Poliak (Europe) Ltd., 232 Acton Lane, London W4 5DL. Triennial.

Sept. 15-23. Int'l Plastics Exbn.—INTERPLAS. ITF. Biennial.

Oct. 10-15. Int'l Mining Exbn. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NH. Biennial.

Oct. 11-20. Int'l Business Show. Business Equipment Trade Assn., 109 Kingsway, London WC2B 6PU. Biennial.

Oct. 27-Nov. 2. Int'l Woodworking Industries Exbn. Andry Montgomery Ltd., 11 Manchester Sq., London W1M 5AB. Biennial.
Oct. 31. Int'l Plant Engineering and Maintenance Exbn. & Conference (PEMEC). Clapp and Poliak (Europe) Ltd., 232 Acton Lane, London W4 5DL. Annual.
Nov. 16-25. Int'l Building and Construction Exbn.—INTERBUILD. Interbuild Exhibitions Ltd., 11 Manchester Sq., London W1M 5AB. Biennial.

Blackpool

Feb. 20-24. Gifts Fair. Winter Gardens. Trade Promotion Services Ltd., Exhibition House, Warren Lane, London SE18 6BW. Annual.

Brighton

Sept. 26-30. Int'l Fire Protection and Control Exbn. & Conference—FIRETECH. Metropole Exbn. Hall. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NG.

Harrogate

Jan. 8-13. Harrogate Int'l Toy Fair. Exbn. Hall. Harrogate Int'l Toy Fair Ltd., 8-9 Upper St., Islington, London N1 OPP. Annual.
March 1-3. "British Growers Look Ahead." Exbn. Centre. National Farmers Union, Agriculture House, Knightsbridge, London SW1X 7NJ. Annual.

Kenilworth

July 4-7. Royal Show. National Agricultural Centre. Royal Agricultural Society of England, National Agricultural Centre, Kenilworth, Warwickshire CV8 2LG. Annual.

London

Jan. 5-16. London Int'l Boat Show. Earls Ct. National Boat Shows Ltd., 31 Great Queen St., London WC2B 5AD. Annual.
Feb. 6-13. Int'l Furniture Show. Earls Ct. B.F.M. Exhibitions Ltd., 17 Berners St., London W1P 4DT. Annual.
Feb. 21-25. Engineering Design Show & Conference. National Exbn. Centre. Fairs and Exhibitions Ltd., 21 Park Sq. East., Regent's Park, London NW1 4LH. First time.
Feb. 28-March 4. Int'l Knitwear Fair. Earls Ct. Mack-Brooks Exhibitions Ltd., 62-64 Victoria St., St. Albans AL1 3XT, Herts. First time, to be annual.
Feb. 28-March 4. Int'l Men's & Boys' Wear Exbn. Earls Ct. ITF. Annual.
March 22-24. Int'l Tire & Equipment Exbn. Earls Ct. Holdsworth Smith Ltd., 39 Victoria St., London SW1. First time.
March 28-April 1. AUTOQUIP '77 Exbn. Wembley Conference Centre. S.M.M.T. Ltd., 21-24 Grosvenor Pl., London SW1. Annual.
April 19-21. All Electronic Show. Grosvenor House. Ars Electronica Ltd., 34-36 High St., Saffron Walden, Essex. Annual.
April 25-29. Int'l Fire, Security & Safety Exbn. & Conference—IFSSEC. Olympia. Victor Green Publications Ltd., 106 Hampstead Rd., London NW1 2LS. Biennial.
May 17-20. London Electronic Component Show. Olympia. ITF. Biennial.
June 21-23. Thermal, Acoustic, Vibration and Insulation Exbn. Wembley Conference Centre. Marketing Exhibitions Ltd., 113/123 Upper Richmond Rd., London SW15 2TL. Biennial.
June 26-30. Int'l Contract Furnishing and Interior Design Exbn. Including kitchen and bathroom exhibitions. Olympia. Westbourne Exhibitions Ltd., Crown House, Morden, Surrey SM4 5EB. Annual.
Sept. 4-8. Int'l Watch and Jewelry Trade Fair. Wembley Conference Centre. Oliffe Promotion Ltd., Dorset House, Stamford St., London SE1 9LU. Biennial.
Sept. 13-15. Control & Instrumentation Exbn. West Centre Hotel. Holdsworth Smith Ltd., 39 Victoria St., London SW1. Biennial.
Sept. 20-23. Int'l Filtration and Separation Exbn.—FILTECH. Olympia. Filtech Exhibitions Ltd., 1 Katherine St., Croydon CR9 1LB. Biennial.
Sept. 23-30. Dust Control and Air Cleaning Exbn. and Conference. Olympia. Technology Exhibitions Ltd., 1 Katherine St., Croydon CR9 1LB. Biennial.
Oct. 25-27. Food Manufacturing Exbn. & Conference. Royal Lancaster Hotel. Holdsworth Smith Ltd., 39 Victoria St., London SW1H OEE. First time.
Nov. 8-10. Medical Laboratory Exbn. West Centre Hotel. Gerard Mann (Publicity) Ltd., 4 Saville Gardens, Radcliffe Rd., Croydon, Surrey CRO 5QQ. Biennial.
Nov. 15-17. National Graphic Design and Drafting Exbn. Hilton Hotel. Project Presentations Ltd., 58 Theobalds Rd., London WC1X 8SF. Annual.
Nov. 15-18. Int'l Exbn. for the Food and Allied Industries. Olympia. BPS Exhibitions Ltd., 4 Seafort Ct., Portland St., London W1N 5HH. Biennial.

Manchester

Sept. 15-18. Int'l Hardware Trades Fair. Belle Vue. Universal Exhibitions Ltd., P.O. Box 43, High Wycombe, Bucks. Annual.

USSR

For all events, write: Department of International and Foreign Exhibitions in the USSR, 1-a Sokolnicheski Val, Moscow 107232, USSR; telex 7185 UIV TPP SU.

Kiev

June 21-July 4. STROJMATERIALY-77. Building materials, equipment for production: glass industry, ceramic industry, wall materials.

Minsk

May 24-June 6. POWDER METALLURGY-77. Special methods of compacting, and equipment for investigation of metal-ceramic materials.

Moscow

Unless otherwise indicated, fairs are held in Sokolniki Park.
Feb. 22-March 4. ROBOTS-77. Program controlled metalworking equipment, robots manipulators, automatic operators.
March 29-April 8. METROLOGY-77. Reference standards, model measuring equipment, precision instruments.
April 5-15. SVJAZ-77. Equipment, technological processes used in manufacture of means of communication.
June 9-23. Electrical equipment and power transmission lines.
July 13-27. Railway Transport. Sherbinka Station.
July 20-31. CHEMPHARMINDUSTRIA-77. Equipment and apparatus for drug production and testing.
July 22-Aug. 1. LTIKONTROLMATERIALY-77. Materials, testing equipment for foundry operations.
Sept. 1-15. CHEMISTRY-77. Machines, equipment, technology for production of new chemical materials.
Oct. 13-23. OPTICS-77. Optics in science, industry, everyday life.

Tallin

May 17-30. COTTAGE-77. Equipment for production of small prefabricated houses; building materials and components.

Tashkent

March 30-April 11. MEDICAL APPARATUS-77. Equipment for diagnostics, treatment of cardiac, nervous diseases.

Tbilisi

Oct. 6-17. CARDIOLOGIA-77. Equipment for clinical treatment and research of ischemia heart disease.

Yerevan

Oct. 11-21. STONE PROCESSING-77. Installations, equipment for stone extraction, processing.

Venezuela

Caracas

Unless otherwise indicated, fairs are held at VENEXPO *Pavilion, Plaza Venezuela.*
Feb. 5-13. AUDIO VISION '77—Audiovisual Industries. Pro-Venezuela Pavilion. Contacto de Mercado (Comercado), Avenida Principal Caurimare, Caracas, Edificio Caurimare, Piso 8, Oficina D-82, attn. Eduardo Lopez.
July. EXPOFICINA '77 (office equipment, inc. accounting & secretarial machines, furniture, accessories, supplies). Contacto de Mercado, address above.
October. LATINPACK (wrapping, packing, printing). Envase y Embalaje, Editorial Tucan, Avenida Las Acacias, Sabana Grande, Caracas, Edificio Arismendi, Piso 1, Aptdo. 70597, attn. Miguel Diaz Hernandez.
October. Femimundo (household articles, inc. furniture, appliances, fixtures, clothing & personal care items). Contacto de Mercado, address above.

Yugoslavia

Belgrade

For all Belgrade events write: Beogradski Sajam (Belgrade Fair), Attn: Milandin Sakic, Director General, Bulevar vojvode Misica 14, P.O. Box 408, 11000 Belgrade; Telephone: 655-555, Cable: SAJAM BEOGRAD, *Telex: 11306 yu bgsajam.*
Feb. 14-20. Int'l Exbn. of TV and PTT Equipment. Triennial.
March 7-13. 3rd Spring Clothing Fair; 16th Int'l Motor Show; and 21st Int'l Technical Fair with Five Shows: Medicine, Civil Engineering, Foundry Trade, Computers, Chemicals. Annual.
June 8-12. Int'l Innovation Fair and Transfer of Technology. Biennial.
June 14-18. "SAVROPAK"—Modern packaging exhibit. Biennial.
Oct. 1-9. "Fashions in the World"—18th Int'l Clothing Fair. Annual.
Oct. 24-30. Int'l Photo and Movie Exhibit, biennial; Int'l Exhibit ed Advanced Educational Aids and Equipment, annual; Int'l Exhibit of Occupational Safety and Human Environmental Protection, annual; Int'l Book Fair, annual.
Nov. 21-27. Furniture Fair. Annual.

Leskovac

May 29-June 4. 25th Int'l Fair of Textiles and Textile Machinery. Medjunarodni Sajam Tekstila I Tekstilnih Masina, Koste Stamenkovica 5, 16000 Leskovac, Attn: Mr. Djordje Begovic, Director, Cable: SAJAM LESKOVAC. Annual.

Ljubljana

For Ljubljana fairs, write: Gospodarsko Razstavisce (Ljubljana), Titova cesta 50, 61000 Ljubljana, Attn: Mr. Leopold Kresa, Dir. Gen., Telex: 31127 yu gr.
Jan. 15-21. MODA 77—22nd Fair of Ready-to-Wear Clothing, Textiles, Knitwear, Leather Products. Annual.
Feb. 15-19. Int'l Exbn. of Teaching Aids and School Equipment. Biennial.

March 29-April 3. ALPE ADRIA 77—16th Int'l Samples Fair. Annual.

May 5-10. Technique for Environment 77—2nd Int'l Exbn. of Systems, Equipment and Technical Means for Environmental Protection. Annual.

May 24-26. SETEX 77—10th Int'l Trade Fair of Cloth and Trimming Samples for Clothing Trade. Annual.

June 7-12. Furniture Show 77—Exbn. of all Types of Furniture and Interior Decoration. Biennial.

Aug. 4-29. VINO 77—23rd Int'l Wine Fair. Annual.

Aug. 20-28. Agricultural and Food Industry Fair 77—15th Int'l Agricultural and Food Industry Exbn. of Pomurje in Gornja Radgona. Annual.

Oct. 3-7. Modern Electronics 77—24th Int'l Exbn. of Electronics, Telecommunications, Automation, Electronic Data Processing Devices and Nuclear Techniques. Annual.

Nov. 16-20. SKI EXPO 77—Int'l Fair of Equipment for Winter Sports and Tourism. Annual.

Novi Sad

For Novi Sad fairs, write: Novosadski Sajam, Hajduk Veljkova 11, P.O. Box 165, 21000 Novi Sad, Attn: Mr. Nikola Dragin, Director; Mr. Stevan Muric, Counselor/International Exhibitors, Telex: 14180 yu sajam.

May 13-22. 44th Int'l Agricultural Fair. Annual.

June 27-July 3. 1st Int'l Fair of Equipment and Technology for Bakeries. Biennial.

Sept. 24-Oct. 2. 14th Autumn Int'l Agricultural Fair. Annual.

Oct. 15-23. 10th Int'l Fair of Hunting, Fishing and Sports Equipment. Annual.

Sarajevo

For Sarajevo fairs, write: SKENDERIJA, *Center for Cultural Sports, Social and Economic Activities, Mice Sokolovica b.b., 71000 Sarajevo, Attn: Mr. Ljubo Kojo, Director General, Telex: 41248 yu skend.*

March 14-19. 8th Int'l Fair of Tourism and Sports. Annual.

May 6-10. 1st Exbn. of Ceramics, Glass, Porcelain and Equipment for Civil Engineering. Biennial.

May 17-21. 4th Children's Int'l Fair, "A Thousand Joys." Annual.

Oct. 10-15. 8th Int'l Fair of Plum Brandy, Other Alcoholic and Non-Alcoholic Beverages and Equipment for Beverage Industry. Annual.

Nov. 7-12. 6th Int'l Fair of Plastics, Rubber and Synthetic Rubber. Annual.

Skopje

For Skopje fairs, write: Skopski Saem, Novo Sajmiste, P.O. Box 356, 91000 Skopje, Attn: Strate Arsovski, Dir. Gen., Telex: 51197. All events are annual.

April 12-17. Int'l Fair of Furniture and Household Equipment; "Do-it-yourself" Int'l Exbn.

May 10-15. Int'l Fair of Jewelry, Watches, Souvenirs, Cosmetics and Handicrafts; Int'l Exbn. of Children's Toys; Int'l Exbn. of Musical Instruments, Records, Accessories and Disco-clubs Equipment—Music and Acoustics 77.

June 3-9. 27th Skopje Fair.

Oct. 3-9. SKOMESA—Skopje Int'l Fair with Two Shows: 18th Int'l Tobacco and Tobacco Machinery Fair; Int'l Agro-industrial Fair.

Nov. 1-6. METALS & NONMETALS 77—Int'l Fair of Ferrous, Non-Ferrous Metallurgy, Light Industry and Nonmetals; Int'l Exbn. of Building Materials, Construction Means and Equipment.

U.S. PRODUCTS IN COLOMBIA—*A variety of U.S. products attracted attention in U.S. pavilion at this year's Bogota Int'l Fair—among them, the latest in a Chicago firm's sewing machines. This biennial fair will next be held July 15-30, 1978.*

Subotica

For Subotica fairs, write: Subotica International Fair, Aleja Marsala Tita 5, 25000 Subotica, Attn: Mr. Mane Diklic, Director. Events are annual.

April 2-10. 6th Panonia Fair. Consumer goods samples.

Oct. 8-16. Int'l Fair of Handicrafts, Equipment, Tools and Folk Arts and Crafts.

Zagreb

For all Zagreb events write: Zagrebacki Velesajam (Zagreb Fair), Attn: Stanko Zlataric, Director, Commercial Division, Aleja Borisa Kidrica 2, 41000 Zagreb; Telephone: 511-666, Cable: VELESAJAM ZAGREB, *Telex: 21385 yz zv zg.*

Feb. 22-25. 26th Int'l Leather and Footwear Week. Annual.

April 18-24. Zagreb Int'l Spring Fair Program: TU-EX, Exbn. of Tourism and Catering and Shop Equipment; IHOGA, Show of Gastronomy and Hotel Industry; Consumer Goods Fair; Food Fair; Crafts Fair; Furniture and Timber Industry Fair; Textile Industry Fair; SPORTEX, Fair of Sports and Recreation Equipment. All annual.

April 18-24. INTERNAUTIKA—Int'l Nautical Exhibit, annual; PLASTEX, Int'l Fair of Plastics and Rubber, biennial; JUREMA, Int'l Exbn. of Measuring and Control Techniques and Automation, biennial; 6th Int'l Fair of Transport, Communications and Mechanical Handling, biennial.

May 16-21. 9th Int'l Fair of Medicine and Medical Aids; INTERLABOR, 3rd Int'l Fair of Laboratory Equipment. Both biennial.

June 6-10. INTERKLIMA, Int'l Fair of Heating, Cooling and Air-Conditioning Equipment; URBANEX—Int'l Fair. Both biennial.

Sept. 9-19. Zagreb Int'l Fair. Yugoslavia's largest sample fair. Annual.

Oct. 17-22. INTERBIRO—Int'l Office Machinery and Equipment, annual; EDUCA—Int'l Exbn. of Teaching Aids and Training Equipment, biennial.

Nov. 8-10. KUTEX—Int'l Commercial Textile Contracting. Annual.

Nov. 24-27. INTERDISC—Exbn. of Records, Audio Appliances and Equipment. Annual.

Zaire

Kinshasa

July 24. Int'l Fair of Kinshasa. FIKIN Grounds, Kinshasa/Limete, Commissariat General de la Foire Int'l de Kinshasa, B.P. 1397, Kinshasa 1. Biennial.

EXPORTERS FIND BUYERS FROM ABROAD AT U.S. EXPOSITIONS YEAR-ROUND

For members of the U.S. business community interested in expanding exports through participation in events in this country, U.S. industry expositions are listed below by date, name, location, and fair management address.

The following partial list includes principal shows whose managements have indicated to the Commerce Department an interest in hosting foreign exhibitors, and business and professional visitors. Information is taken from the latest data submitted to the Department's United States Travel Service; however, Commerce cannot assume responsibility for the accuracy of dates or the outcome of transactions with fair managements.

For general information on trade fairs and expositions in the United States, write: Conventions and Expositions Division, United States Travel Service, Room 4845, U.S. Department of Commerce, Washington, D.C. 20230.

Some of the fairs listed will receive trade promotion assistance by Commerce's Office of Export Development, under its Foreign Buyer Program. These key events are identified by the Symbol "FBP". Inquiries concerning FBP shows may be addressed to OED/FBP, U.S. Department of Commerce, Washington, D.C. 20230.

January 1977

2-9. Southern California Sports, Vacation & Recreation Vehicle Show, Anaheim. Werner Buck Enterprises, 1050 Georgia St., Los Angeles, Calif. 90015.

3-5. Dallas Tennis Show, Dallas. Market Center, 2100 Stemmons Freeway, Dallas, Tex. 75207.

6-9. Miami Beach Gift & Jewelry Show, Miami Beach, Fla. Helen Brett Enterprises, Inc., 6 E. Monroe St., Chicago, Ill. 60603.

6-9. Nat'l Fashion & Boutique Show, New York. Oscar Pluznick, Pres., Hotel McAlpin, No. 2290, 34th & Broadway, New York, N.Y. 10001.

8-16. Atlanta Int'l Sports & Travel Show, Atlanta, Ga. Robert S. Hart, Jr., H & H Productions Inc., 1172 W. Galbraith Road, Cincinnati, Ohio 45231.

8-16. Houston Int'l Boat, Sport & Travel Show, Houston. Bill Ferguson, 215-3030 Kirby Dr., Houston, Tex. 77006.

9-13. Atlantic City China & Glass Show, Atlantic City, N.J. George Little Management, Inc., 261 Madison Ave., New York, N.Y. 10016.

9-14. Chicago Homefurnishings Mkt/

America's Nat'l Lamp Show, Chicago. Robert Larson, Dir. of Communications, 666 Lake Shore Dr., Chicago, Ill. 60611.

10-12. Tennis Industry's Nat'l Buying Show, Miami Beach. H. C. Katz, Pres., 915 NE. 125th St., Suite 2-CN, Miami, Fla. 33161.

11-13. INTERPIPE (Int'l Pipeline Technical Conv.), Houston. David I. Johnson, Sr. Vice Pres., 6006 Bellaire Blvd. No. 109, Houston, Tex. 77036.

11-16. Nat'l Manufactured Housing Show, Louisville, Ky. J. F. Michaels, 14650 Lee Road, Chantilly, Va. 22021.

13-18. Nat'l Audio-Visual Conf. & Education Expo (FBP), Anaheim, Calif. James P. Thompson, Conv. & Exhibit Mgr., Nat'l Audio-Visual Assoc Inc., 3150 Spring St., Fairfax, Va.

14-16. Winter Consumer Electronics Show, Chicago. Bill Glasgow, Mgr., CES 1 IBM Plaza, Chicago, Ill. 60611.

14-19. Transworld Housewares & Variety Exbn., Chicago. Ray Passis, Chmn., 466 Central Ave., Chicago, Ill. 60093.

16-19. New York Home Furnishings Market, New York. Mrs. Fredie S. Schaeffer, 205-215 Lexington Ave., New York, N.Y. 10016.

16-19. Concrete Industries Expos., Kansas City, Mo. Martin C. Dwyer Inc., 400 N. Michigan Ave., Chicago, Ill. 60611.

16-19. Portland Gift Show, Portland, Ore. Western Exhibitors, Inc., 2181 Greenwich St., San Francisco, Calif. 94123.

17-20. Nat'l Housewares Expos., Chicago. Dolph Zapfel, Mng. Dir., 1130 Merchandise Mart, Chicago, Ill. 60654.

23-27. National Assn. of Home Builders Conv. & Expos. Dallas, Tex. Edward F. Connors, Exec. Sales Dir., 15th & M St., NW., Washington, D.C. 20005.

27-29. S.E. Int'l Poultry Education Trade Show/Conv., Atlanta. Harold Ford, 1456 Church St., Decatur, Ga. 30030.

29-Feb. 2. Nat'l Automobile Dealers Assn. Equipment Expo, New Orleans, La. L. J. Smith. Dir. Conv. Dept., 1640 Westpark Dr., McLean, Va. 22101.

29-Feb. 6. Int'l Boat Show, Boston. Roy Reiss, Public Relations Dir., 1330 Boylston St., Chestnut Hill, Mass. 02167.

February 1977

1-6. Birmingham Sports & Boat Show, Birmingham, Ala. Steve Clarkson, Vice Pres., Houston, Tex. 77042.

3-6. Gutenberg Festival, Anaheim. David Jacobson, P.O. Box 11712, Santa Ana, Calif. 92711.

3-6. Nat'l Sporting Goods Ass'n Conv. & Show, Chicago. Robert J. Youngblood, Ass't Exec. Dir., 717 N. Michigan Ave., Chicago, Ill. 60611.

5-12. Eastern Sports & Outdoor Show, Harrisburg, Pa. Mitchell Halperin, 1330 Boylston St., Chestnut Hill, Mass. 02167.

6-8. New Orleans Gift & Jewelry Show, New Orleans, La. Helen Brett, 6 E. Monroe St., Chicago, Ill. 60603.

7-11. World Fair for Technology & Exchange, Chicago, Ill. Dr. Dvorkovitz & Assoc., P.O. Box 1748, Ormond Beach, Fla. 32074.

13-16. Int'l Expos. for Food Processors, New Orleans, La. Food Processing Machinery & Supplies Assn., 7758 Wisconsin Ave., Washington, D.C. 20014.

13-18. Chicago Gift Show, Chicago. William E. Little, Eastern Mfgrs. & Importers Exbn., Inc., 261 Madison Ave., New York, N.Y. 10016.

14-16. Int'l Pulp & Paper Industry Exbn., Atlanta, Ga. Ken Field, Mgr., Nat'l Expositions, 14 W. 40th St., New York, N.Y. 10018.

14-17. Int'l Air Conditioning, Heating, & Refrigerating Expos. (FBP), Chicago, Ill. V. McDonnel, Pres., Int'l Exposition Co., 200 Park Ave., New York, N.Y. 10017.

16-19. Nat'l Farm Machinery Show, Louisville. Les G. Carlisle, Mgr., P.O. Box 21179, Louisville, Ky. 40221.

17-23. Miami Int'l Boat Show, Miami Beach. John Rogers, Exec. Mgr., 1570 Madruga Ave., Coral Gables, Fla. 33146.

19-22. Variety Merchandise Show, New York, N.Y. Jay R. Thalheim, Pres., 98 Cutter Mill Rd., Great Neck, N.Y. 11021.

19-27. Nat'l Antiques Show, New York, N.Y. N. H. Mager, 11 Warren St., New York, N.Y. 10007.

20-22. Int'l Cycle Show, New York, N.Y. Int'l Trade Shows, 545 Fifth Ave., New York, N.Y. 10017.

20-22. Int'l Toy Fair, New York, N.Y. Int'l Trade Shows, 545 Fifth Ave., New York 10017.

20-23. Seattle Gift Show, Seattle, Wash. Western Exhibitors, Inc., 2181 Greenwich St., San Francisco, Calif. 94123.

20-28. Chicago Dental Society Midwinter Meeting, Chicago. Karl S. Richardson, Exec. Dir., 30 N. Michigan Ave., Suite 1302, Chicago, Ill. 60602.

28-Mar. 2. Western Farm Show, Kansas City, Mo. J. Keith Melvin, 638 W. 39th St., Kansas City, Mo. 64111.

28-Mar. 4. SAE Int'l Automotive Eng. Conv. & Expos., Detroit, Mich. Dave Mitchell, Soc. of Automotive Engineers, 400 Commonwealth Dr., Warrendale, Pa. 15096.

March 1977

1-3. NEPCON West Int'l Microelectronics Exbn., Anaheim, Calif. Phillip P. Ullo, Exec. Vice Pres., Industrial & Scientific Conference Management, Inc., 222 West Adams, Chicago, Ill. 60606.

1-3. Southwest Engineering Conf. & Tool & Mfg. Expos., Houston, Tex. Tom Akas, PR Mgr., Society of Manufacturing Engineers, 20501 Ford Rd., Dearborn, Mich. 48128.

5-13. Coliseum Antiques & Flower Show, New York, N.Y. Ms. Diane Wendy, Vice Pres., Westchester Enterprises, Inc., 5 Harbor Lane, Rye, New York 10587.

9-11. Ports '77, Long Beach, Calif. A. J. Favata, Exh. Mgr., American Society of Civil Engineers, 345 E. 47th St., New York, N.Y. 10017.

9-12. Sawmill Plywood Clinic & Machinery Show, Portland, Ore. Jim Wallace, Miller Freeman Publications, 500 Howard St., San Francisco, Calif. 94105.

10-12. Graphic Arts '77, Charlotte. Bill Treadway, P.O. Box 4262, Charlotte, N.C. 28204.

10-13. Int'l Bedding Show Case, Houston, Tex. Virginia Reinecke, Meetings Coordinator, Nat'l Assn. of Bedding Manufacturers, 1150 17th St., NW., Washington, D.C. 20036.

11-13. Int'l Motorama, Phoenix, Ariz. William Moeller, Pres., Pacific Promotions, Inc., P.O. Box 1518, Canoga Park, Calif. 91304.

13-16. Home Center/Home Improvement Congress & Expos., New Orleans. George L. Milne, Publishing Dir., 300 W. Adams St., Chicago, Ill. 60606.

14-16. Triumph of Agriculture Expo Farm & Ranch Machinery Show, Omaha, Neb. Robert P. Maneuso, Pres., Mid-America Expositions, Inc., 666 Farnam Bldg., Omaha, Neb. 68102.

14-17. WESTEC Eng. Expos. & Conf., Los Angeles, Calif. Tom Akas, PR Mgr., Society of Manufacturing Engineers, 20501 Ford Rd., Dearborn, Mich. 48128.

16-18. Int'l Automotive Service Industry Show, Chicago, Ill. J. Stewart Gillies, Exec. Sec., Overseas Automotive Club, 475 Park Ave. S., New York, N.Y. 10016.

19-22. Int'l Beauty Show, New York, N.Y. Donn H. Byrne, Mng. Dir., 100 Park Ave., Suite 850, New York, N.Y. 10017.

21-25. American Chemical Society Expos., New Orleans, La. A. T. Winstead, Dir. of Meetings & Expos. Dept., 1155-16th St., NW., Washington, D.C. 20036.

27-30. Atlanta Women's Apparel Market Atlanta. Don MacConaugha, 240 Peachtree St. NW., Atlanta, Ga. 30303.

27-30. Housewares & Variety Merchandise Show, Los Angeles, Calif. Jay Thalheim, 98 Cutter Mill Rd., Great Neck, N.Y. 11021.

27-31. Int'l Gas Turbine Conf., Philadelphia, Pa. T. E. Stott, Div. Sec., c/o Stat-Laval Inc., 400 Executive Blvd., Elmsford, N.Y. 10523.

29-Apr. 1. SAE Business Aircraft Meeting & Display, Wichita, Kan. Dave Mitchell, Soc. of Automotive Engineers, 400 Commonwealth Drive, Warrendale, Pa. 15096.

30-Apr. 1. Int'l Trucking Show (FBP), Anaheim. Gary Sherrard, Pres., 1240 Bayshore Hwy., Burlingame, Calif. 94010.

April 1977

4-7. Federation of American Societies for Experimental Biology, Chicago. Steven Herlitz, 850 3rd Ave., New York, N.Y. 10022.

4-8. American Industrial Arts Assn. Int'l Conf., New Orleans. William D. Wolansky, Chmn., Int'l Relations Committee, 1201 16th St., NW., Washington, D.C. 20036.

10-15. Assn. for Childhood Education Int'l Study Conf., Minneapolis. Alberta L. Meyer, Exec. Sec., 3615 Wisconsin Ave., NW., Washington, D.C. 20016.

12-14. Alabama Trade Fair/World Expos. Birmingham. John W. Rousseau, 90 Bagby Dr., Suite 222, Birmingham, Ala. 35209.

14-22. Southern Furniture Market Show, High Point, N.C. Robert P. Gruenberg, Gen. Mgr., 210 E. Commerce Ave., High Point, N.C. 27261.

15-20. Miami Int'l Sports, Travel & Camping Show, Miami. Larry Perl, 7210 Red Rd., Suite 202 S., Miami, Fla. 33143.

17-20. Nat'l Cable TV Assn. Conv., Chicago. Wally Briscoe, V. Pres., 918 16th St., NW., Washington, D.C. 20006.

18-21. World Education Congress for Laundering & Dryeleaning. Chicago. Ward A. Gill, Mgr., 7 S. Dearborn St., Chicago, Ill. 60603.

19-21. ELECTRO '77, New York. William C. Weber, Jr., Gen. Mgr., Institute of Electrical & Electronics Engineers, Inc., 3600 Wilshire Blvd., Los Angeles, Calif. 90010.

25-28. Int'l Audio Expos., Las Vegas. Charles Snitow Orgn., Inc., 331 Madison Ave., New York, N.Y. 10017.

26-28. American Soc. of Civil Engineers Conv. & Expos., Dallas. Fred Favata, Mgr. American Society of Civil Engineers, 345 E. 47th St., New York, N.Y. 10017.

26-28. Nat'l Soc. for the Advancement of Material Process Engineering Symposium & Exbn., San Diego. Box 613, Azusa, Calif. 91702.

26-29. Electric Vehicle Expos. & Conf., Chicago. Jerry Van Dyke, Expos. Mgr., Charles Snitow Orgn., 331 Madison Ave., New York, N.Y 10017.

30-May 4. American Soc. for Clinical Investigation, Washington, D.C. Charles Slack, Inc., 6900 Grove Rd., Thorofare, N.J. 08086.

May 1977

1-3. Nat'l LP-Gas Assn. Int'l Conv. & Exbn., Chicago. John D. Capps, Exec. V. Pres., 1301 W. 22nd St., Oak Brook, Ill. 60521.

1-3. American Soc. for Abrasive Methods Int'l Technical Conf. & Exbn., Cleveland. Roy Denial, Exec. Dir., 1049 S. Main St., Plymouth, Mich. 48170.

1-4. Supermarket Institute Conv. & Education Expos., Dallas. Murray Grigg, 303 E. Ohio St., Chicago, Ill. 60611.

1-5. Knitting Arts Exbn. (FBP), Atlantic City, N.J. Robert T. Kenworthy, Inc., 866 UN Plaza, New York, N.Y. 10017.

2-4. Accounting Show & Conf., New York. Charles Snitow Orgn., Inc., 331 Madison Ave., New York, N.Y. 20036.

2-5. Instrument Automation Conf. & Exbn., Anaheim, Calif. P. N. Meade, Exbn. Dir., Instrument Soc. of America, 400 Stanwix St., Pittsburgh, Pa. 15222.

2-5. Offshore Technology Conf., Houston. Douglas L. Ducate, Conv. Mgr., 6200 N. Central Expressway, Dallas, Tex. 75206.

2-5. Premium Show, New York, N.Y. Jay R. Thalheim, 98 Cutter Mill Rd., Great Neck, N.Y. 11021.

4-9. Washington Int'l Art Fair, Washington, D.C. Elias A. Fellus, 2121 P St., NW., Washington, D.C. 20036.

8-13. American Water Works Assn. Conf., Anaheim, Calif. Harry W. Becker, Conf. Coordinator, 6666 W. Quincy Ave., Denver, Colo. 80235.

9-12. Design Engineering Show, Chicago. Peter W. Nathan, V. Pres., Clapp & Poliak Inc, 245 Park Ave., New York, N.Y. 10017.

9-12. Int'l Tool & Mfg. Expos. & Eng. Conf., Detroit. Tom Akas, PR Mgr., Soc. of Mfg. Engineers, 20501 Ford Rd., Dearborn, Mich. 48128.

9-12. Nat'l Plant Engineering & Maintenance Show & Conf., Chicago. Clapp & Poliak Inc., 245 Park Ave., New York, N.Y. 10017.

10-12. Int'l Leather Goods Show, New York. Louise Collins, American Footwear Industries Assn., 1611 N. Kent St., Arlington, Va. 22209.

10-12. Int'l Powder & Bulk Solids Processing & Handling Conf. & Expos., Rosemont, Ill. Philip Ullo, 222 W. Adams, Chicago, Ill. 60606.

17-20. Nat'l Micrographics Assn. Conf. & Expos., Dallas. John B. Bidwell, 8728 Colesville Rd., No. 1101, Silver Spring, Md. 20910.

18-20. Int'l Trucking Show, Atlanta. Gary Sherrard, Pres., 1240 Bayshore Hgwy., Burlingame, Calif. 94010.

18-21. Int'l Waste Equipment & Technology Expos., New Orleans. Jeanne Hayes, Meetings Dir., Nat'l Solid Wastes Mgmt. Ass'n, Suite 930-1120 Conn. Ave. NW., Washington, D.C. 20036.

21-25. NRA Restaurant Hotel/Motel Show (FBP), Chicago. Andrew P. Kelly, Conv. Dir., Nat'l Restaurant Assn., One IBM Plaza, Suite 2600, Chicago, Ill. 60611.

22-25. AFMA Feed Industries Show, Minneapolis. G. A. Karstens, V. Pres., 1701 N. Ft Myer Dr., Arlington, Va. 22209.

22-25. Nat'l Fashion & Boutique Show, New York. Oscar Pluznick, Pres. Hotel McAlpin, No. 2290, 34th & Broadway, New York, N.Y. 10001.

23-25. Apartment Builder/Developer Conf. & Expos. (FBP), Las Vegas. Justin LeWand, Sales Mgr., Nat'l Expositions Co., 14 W. 40th St., New York, N.Y. 10018.

23-26. Nat'l Powder Metallurgy Technology Conf., Detroit. Peter Johnson, PR Dir., P.O. Box 2054, Princeton, N.J. 08540.

24-26. Western Safety Congress & Exbn., Anaheim, Calif. Joseph M. Kaplan, Exec. V. Pres., 3388 W. 8th St, Los Angeles, Calif. 90005.

25-27. Graphics '77, Los Angeles. Ray Hellman, Dir. Conf. & Exbt., 3 Quintard Dr., Port Chester, N.Y. 10573.

June 1977

1-4. Int'l Repro Graphic Blueprint Assn. Conv., Lincolnshire, Ill. Ray Good, Exec. V. Pres., 10116 Franklin Ave., Franklin Park, Ill. 60131.

5-8. Institute of Food Technologies Mtg. & Expos., Philadelphia. Daniel E. Weber, Conv. Dir., 221 N. LaSalle St., Chicago, Ill. 60601.

5-8. Int'l Security Conf., Atlanta. A. Lilienthal, 2639 S. LaCienega Blvd., Los Angeles, Calif. 90034.

5-8. Summer Consumer Electronics Show, Chicago. Bill Glasgow, Show Mgr., One IBM Plaza, Chicago, Ill. 60611.

6-9. Int'l Die Casting Expos. & Congress, Milwaukee. Robert E. Green, Exec. Dir., Soc. of Die Casting Engineers, 16007 W. 8 Mile Rd., Detroit, Mich. 48235.

10-12. Expo '77 (Forest Products Mach. & Equip. Show), Dallas. H. Keith Judkins, P.O Box 52468, New Orleans, La. 70152.

10-14. NAMM Int'l Music Expos., Atlanta. Larry R. Linkin, Staff V. Pres., Nat'l Assn. of Music Merchants, 35 E. Wacker Dr., Chicago, Ill. 60601.

12-15. Nat'l Fancy Food & Confection Show, New Orleans. Charles Snitow Orgn., Inc., 331 Madison Ave., New York, N.Y. 10017.

12-16. American Ass'n of Petroleum Geologists — SEPM Conv., Washington, D.C. Kathy Watson, Conv. Mgr., P.O. Box 979, Tulsa, Okla. 74101.

13-15. IEEE Int'l Conf. on Communications, Chicago. Edward J. Glenner, GTE Automatic Electric, P.O. Box 2317, Northlake, Ill. 60164.

13-16. Nat'l Computer Conf. (FBP), Dallas. AFIPS, 210 Summit Ave., Montvale, N.J. 07645.

16-19. Int'l Home Furnishing Market, New York. Henry P. C. Keuls, New Furniture Mart Assoc., 205 Lexington Ave., New York, N.Y. 10016.

19-24. Chicago Homefurnishings Mkt/America's Nat'l Lamp Show, Chicago. Robert Larson, Communications Dir., 666 Lake Shore Dr., Chicago, Ill. 60611.

26-28. Int'l Carwash Expos., Chicago. Martin C. Dwyer Inc., 400 N. Michigan Ave., Chicago, Ill. 60611.

July 1977

8-13. Transworld Housewares & Variety Exbt., Chicago. Ray Passis, Chmn., 466 Central Ave., Northfield, Ill. 60093.

10-12. Wisconsin Gift Show, Milwaukee. Offinger Management Co., 1100 Brandywine Blvd., P.O. Box 2188, Zanesville, Ohio 43701.

10-15. Int'l New Thought Alliance Congress, Phoenix. Surinder M. Bhatia, 6922 Hollywood Blvd., No. 706, Hollywood, Calif. 90028.

10-15. Los Angeles Home Furnishings Mart, Los Angeles. Eddy S. Feldman, Mng. Dir., 1933 S. Broadway, Los Angeles, Calif. 90007.

11-14. Nat'l Housewares Expos. (FBP), Chicago. Dolph Zapfel, Mng. Dir., 1130 Merchandise Mart, Chicago, Ill. 60654.

12-14. Western Plant Eng. Show, Anaheim, Calif. A Byron Perkins, 3951 E. Huntington Dr., Suite 104, Pasadena, Calif. 91107.

19-21. Western Packaging Expos., Anaheim, Calif. Clapp & Poliak, Inc. 245 Park Ave., New York, N.Y. 10017.

22-25. ASID Int'l Expos. of Designer Sources, Houston, Ed Gips, c/o ASID, 730 Fifth Ave., New York, N.Y. 10019.

24-28. Int'l Ass'n of Auditorium Mgrs. Industry Trade Show, San Francisco. W. R. Feder, Exec. Dir., 111 E. Wacker Dr., Chicago, Ill. 60601.

August 1977

7-10. San Francisco Gift Show, San Francisco. Western Exhibitors, Inc., 2181 Greenwich St., San Francisco, Calif. 94123.

9-14. Midwest Mobile/Modular Recreation Vehicle Show, South Bend. William H. Strang, 3210 Rand Rd., Indianapolis, Ind. 46241.

11-21. Wisconsin State Fair, W. Allis, Wis. William J. Greiner, State Fair Park, Milwaukee, Wis. 53214.

14-19. New York Gift Show, New York. Little Bros. Shows, Inc., 261 Madison Ave., New York, N.Y. 10016.

21-24. Men's & Boys' Apparel Market, Atlanta. Bill Bishop, 4438 Lake Ivanhoe Dr., Tucker, Ga. 30084.

21-24. Southwestern Shoe Travelers' Shoe Show, Dallas. Dallas Market Center, 2100 Stemmons Freeway, Dallas, Tex. 75207.

22-25. Nat'l Hardware Show (FBP), Chicago. Charles Snitow Orgn. Inc., 331 Madison Ave., New York, N.Y. 10017.

26-28. Southwest Marine Industry Trade Show, Dallas. Mrs. Evelyn Flow, 5766 Blue Ridge Dr., Fort Worth, Tex. 76112.

27-Sept. 1. Women's & Children's Apparel Market, Dallas. Dolores Lehr, Dallas Market Center, 2100 Stemmons Freeway, Dallas, Tex. 75207.

28-Sept. 2. American Chemical Society Expos., Chicago. A. T. Winstead, Dir., Meetings & Expos. Dept., 1155 16th St., NW., Washington, D.C. 20036.

September 1977

7-11. Int'l Trade Fair, Atlanta. Jane Allen, Int'l Mgr., Atlanta Merchandise Mart, Suite 2200, 240 Peachtree St., Atlanta, Ga. 30303.

10-12. Pacific Horticulture Trade Show, Anaheim. Robert L. Jordan, Gen. Mgr., Box 1100, Garden Grove, Calif. 92642.

12-15. SAE Off Highway Vehicle Mtg. & Exbt., Milwaukee. Dave Mitchell, Soc. of Automotive Engineers, 400 Commonwealth Dr., Warrendale, Pa. 15096.

14-25. Eastern States Expos., W. Springfield, Mass. Susan Lavoie, Sales Dir., 1305 Memorial Ave., W. Springfield, Mass. 01020.

17-19. Western Woodworking Machinery & Furniture Supply Fair, Los Angeles. Robert Black, Pres., The Show Co. Int'l, 1605 Cahuenga Blvd., Los Angeles, Calif. 90028.

17-21. Nat'l Tire Dealer & Retreaders Conv. & Trade Show, Anaheim, Calif. W. C. Miller, Dir. Conv. Services, 1343 L St. NW., Washington, D.C. 20005.

20-23. WESCON (Western Electronic Show), San Francisco. 3600 Wilshire Blvd., Los Angeles, Calif. 90010.

22-25. Int'l Marine Trade Exbt. & Conf., Chicago, Ill. John Dobbertin, Mgr., 401 N. Michigan Ave., Chicago, Ill. 60601.

23-Oct. 2. Oklahoma State Fair, Oklahoma City. O. O. Saunders, 500 N. Land Rush St., Oklahoma City, Okla. 73107.

25-28. Nat'l Merchandise Show, New York. Jay R. Thalheim, 98 Cutter Mill Rd., Great Neck, N.Y. 11021.

25-29. Int'l Ass'n of Fire Chiefs Conf., Denver. Donald D. Flinn, Gen. Mgr., 1329 18th St., NW., Washington, D.C. 20036.

26-29. Iron & Steel Expos., Cleveland. Richard F. Dorrell, Suite 2350, Three Gateway Ctr., Pittsburgh, Pa. 15222.

26-30. All American Dairy Show, Harrisburg. Charles A. Itle, Mgr. Farm Show

Bldg., Harrisburg, Pa. 17120.
27-29. Farm Progress Show, Washington County, Iowa. Al Bull, V. Pres., Prairie Farmer Publishing Co., 2001 Spring Rd., Oak Brook, Ill. 60521.
27-29. National Business Aircraft Assn. Meeting & Conv., Houston. John A. Pope, 425 13th St. NW., Suite 401, Washington, D.C. 20004.
27-30. Fact Finding Conf. & Exbt., Kansas City. Don C. Beaver, 521 E. 63rd St., Kansas City, Mo. 64110. Sponsor: Poultry & Egg Institute of America.
28-30. Bobbin Show/AAMA Conv., Atlanta. Ronald Segal, Dir., Bobbin Publications, Inc., P.O. Box 527, 1110 Shop Rd., Columbia, S.C. 29202.
28-Oct. 2. World Dairy Expos., Madison. B. D. Craig, 1707 S. Park St., Madison, Wis. 53713.

October 1977

1-4. Int'l Sporting Goods Expos., New York. Arthur Goettler, Dir., 200 N. Castlewood, N. Palm Beach, Fla. 33408.
1-6. Int'l Assn. of Chiefs of Police Conf., Los Angeles. R. B. Angrisani, 11 Firstfield Rd., Gaithersburg, Md. 20760.
3-6. Incentive Travel & Meeting Executives Show, Chicago. Richard T. Glaser, 7237 Lake St., River Forest, Ill., 60305.
3-6. Nat'l Premium Show, Chicago. Richard Glaser, 7237 Lake St., River Forest, Ill. 60305.
7-23. State Fair of Texas, Dallas. Tom H. Beene, P.O. Box 26010, Dallas, Tex. 75226.
8-13. Baking Industry Expos., Atlantic City, N.J. Jane Kellam, American Bakers Assn. 1700 Pennsylvania Ave. NW., Washington, D.C. 20006.
9-12. Info/Expo Int'l Conf. & Business Expos., Washington, D.C. Lila Suurmeyer, Conf. Coordinator, Data Processing Management Assn. 505 Busse Hgwy., Park Ridge, Ill. 60068.
11-13. SME Engineering Conf. Tool & Mfg. Expos., Rosemont, Ill. Tom Akas, 20501 Ford Rd., Dearborn, Mich. 48128.
13-16. Nat. Conv./Exbt. of Vending & Foodservice Management, Chicago. Walter W. Reed, Nat'l Automatic, Merchandising Assn., 7 S. Dearborn St., Chicago, Ill. 60603.
14-16. Int'l Motorcycle Aftermarket Expos., Las Vegas. Blaine Birchfield, P.O. Box 2830, Newport Beach, Calif. 92663.
14-17. Fish Expos., Seattle. David Jackson, 21 Elm St., Camden, Maine 04843.
14-20. Nat'l Environmental Sanitation & Maintenance Education Conf./Expos., Orlando, Fla. Harold C. Rowe, Exec. Dir., 1710 Drew St., Clearwater, Fla. 33515.
16-19. Int'l Security Conf., New York. A. Lilienthal, 2639 S. LaCienega Blvd., Los Angeles, Calif. 90034.
16-19. Oceans 77, Los Angeles, Calif. Marine Technology Soc., Suite 412, 1730 M St., NW., Washington, D.C. 20036.
17-20. Int'l Metal Working Expos./Congress, Rosemont, Ill., Martin C. Dwyer, 400 N. Mich. Ave., Chicago, Ill. 60611.
17-20. Instrument Soc. of America Conf. & Exbt., Niagara Falls, N.Y. P. N. Meade, Exbt. Dir., Instrument Soc. of America, 400 Stanwix St., Pittsburgh, Pa. 15222.
17-20. Nat'l Safety Congress & Expos., Chicago. Ken Eckholt, Congress Mgr., 425 N. Michigan Ave., Chicago, Ill. 60011.
18-20. American Society of Civil Engineering Expos., San Francisco. Fred Favata, Exbt. Mgr., 345 E. 47th St., New York, N.Y. 10017.
18-20. Western Material Handling & Packaging Show, San Francisco. A. Byron Perkins, Suite 104, 3951 E. Huntington Dr., Pasadena, Calif. 91107.
19-21. AATCC Nat'l Technical Conf., Atlanta. George H. Dockray, American Assn. of Textile Chemists & Colorists, P.O. Box 12215, Research Triangle Park, N.C. 27709.
23-26. Produce Marketing Assn. Expos., New Orleans. Jim Johnson, P.O. Box 674, Newark, Del. 19711.
23-27. Nat'l Ice Assn. Inc. Industry Expos., Dallas. Patricia A. Junkin, 7979 Old Georgetown Rd., Washington, D.C. 20014.
25-27. Electro-Optics/Laser Show, Anaheim, Calif. Philip P. Ullo, Exec. V. Pres. 222 West Adams, Chicago, Ill. 60606.
25-27. Hydraulics & Pneumatics Show, Chicago. Howard A. Freed, Dir., 614 Superior Ave. W., Cleveland, Ohio 44113.
25-27. Materials Show, Cincinnati. Howard A. Freed, Show Dir., 614 Superior Ave. W., Cleveland, Ohio 44113.
25-27. Power Transmission Design Show, Chicago. Howard A. Freed, 619 Superior Ave. W., Cleveland, Ohio 44113.
28-30. Foto West, Los Angeles. D. Jacobson, Show Mgr., P.O. Box 11712, Santa Ana, Calif. 92711.
29-Nov. 1. Int'l Footwear Mfg. Conf. & Expos., Atlantic City, N.J. Louise Collins, American Footwear Industries Assn., 1611 N. Kent St., Arlington, Va. 22209.
29-Nov. 6. New England Int'l Auto Show, Boston. Richard Sherman, 1330 Boylston St., Suite 209, Chestnut Hill, Mass. 02167.
31-Nov. 3. Energysave '77, Atlanta. Connie Baehm, Dir., Winterpark Tradeshow Inc., 181 E. 56th Ave., Suite 201, Denver, Colo. 80216.

November 1977

1-3. Building & Construction Expos. & Conf., Chicago. C. E. Cohrs, Vice Pres., Charles Snitow Orgn., Inc., 331 Madison Ave., New York, N.Y. 10017.
1-3. Plant Engineering & Maintenance Show & Conf./South, Atlanta. Clapp & Poliak, Inc., 245 Park Ave., New York, N.Y. 10017.
1-3. Pollution Engineering Expos. & Congress, Atlanta. Clapp & Poliak, Inc., 245 Park Ave., New York, N.Y. 10017.
1-4. Int'l Film & TV Festival of New York, New York. Herbert Rosen, Chmn., 251 W. 57th St., New York, N.Y. 10019.
1-4. Screen Print '77, Anaheim, Calif. John M. Crawford, Exec. V. Pres., 307-F Maple Ave. W., Vienna, Va. 22180.
3-6. Nat'l Swimming Pool Institute Conv./Expos., San Francisco. Ruth T. Williams, Dir. of Conv. & Shows, 2000 K St., NW., Washington, D.C. 20006.
4-11. Keystone Int'l Livestock Expos., Harrisburg. Charles A. Itle, Mgr., Farm Show Bldg., Harrisburg, Pa. 17120.
6-9. Int'l Hotel/Motel & Restaurant Show, New York. John Egan, Gen. Mgr., 141 W. 51st St., New York, N.Y. 10019.
7-11. Federation of Analytical Chemistry & Spectroscopy Soc., Detroit. E. Ruffing, J & R Assoc., Inc. 125 Westview Rd., Upper Montclair, N.J. 07043.
13-16. Farm Equipment Mfgrs. Ass'n Fall Conv., Atlanta. Conv. Mgr., 230 S. Bemiston, St. Louis, Mo. 63105.
14-16. Int'l Soft Drink Industry Expos., Anaheim, Calif., Clapp & Poliak, Inc., 245 Park Ave., New York, N.Y. 10017.
15-17. Automotive Parts & Accessories Assn. Show, Chicago. James Sobszak, Hall-Erickson, Inc., 7237 Lake St., River Forest, Ill. 60305.
17-20. Int'l Assn. of Amusement Parks & Attractions Trade Show, Atlanta. Grace Urban, Off. Mgr., 1125 Lake St. Bldg., Suite 204-206, Oak Park, Ill. 60301.
18-20. Nat'l Decorating Products Show, Chicago, Ill. Robert E. Petit, Exec. V. Pres., 9334 Dielman Industrial Dr., St. Louis, Mo. 63132.
25-27. Int'l Art Festival, McAllen, Tex. Mrs. Thornton Thacker, Box 1388, McAllen, Tex. 78501.

December 1977

1-7. Mini/Micro Computer Conf. & Expos., Anaheim. Robert D. Rankin, 5544 E. La Palma, Anaheim, Calif. 92807.
4-8. Nat'l Agricultural Aviation Assn. Conv., Las Vegas. Bert Brower, Suite 459, Nat'l Press Bldg., Washington, D.C. 20045.
5-7. Nat'l Telecommunications Conf., Los Angeles. Stanley Butman, Jet Propulsion Lab., 4800 Oakgrove, Pasadena, Calif. 91103.
5-8. Chemical Industry Expos., Chicago. Int'l Expos. Co., 200 Park Ave., New York, N.Y. 10017.

January 1978

6-8. Int'l Motorama, Phoenix. William Moeller, Pres., Pacific Promotions Inc., P.O. Box 1518, Canoga Park, Calif. 91304.
8-13. Chicago Homef rnishings Market/America's Nat'l Lamp Show, Chicago. 666 Lake Shore Dr., Chicago, Ill. 60611.
10-11. Fertilizer & Agricultural Expos., Des Moines. Winton Etchen, Exec. V. Pres., 541 31st St., Des Moines, Iowa 50312.
12-17. Nat'l Audio-Visual Conv. & Education Exbt., Houston. James P. Thompson, Conv. & Exbt. Mgr., 3150 Spring St., Fairfax, Va. 22030.
13-15. Winter Consumer Electronics Show, Chicago. Bill Glasgow, Show Mgr., One IBM Plaza, Chicago, Ill. 60611.
13-18. Transworld Housewares & Variety Exbt., Chicago. Ray Passis, Chmn., 466 Central Ave., Northfield, Ill. 60093.
13-21 Nat'l Western Stock Show, Denver. 1325 E. 46th Ave., Denver, Colo. 80216.
15-18. Int'l Housewares Marketplace, Chicago. Martin C. Dwyer, Inc., 400 N. Michigan Ave., Chicago, Ill. 60611.
16-19. Nat'l Housewares Expos., Chicago. Dolph Zapfel, Mng. Dir., 1130 Merchandise Mart, Chicago, Ill. 60654.
21-25. Concrete & Aggregates Show, Las Vegas. Vincent P. Ahearn, Jr., 900 Spring St., Silver Spring, Md. 20910.
22-26. Nat'l Ass'n of Home Builders, Dallas. Edward F. Connors, 15th & M Sts., NW., Washington, D.C. 20005.
26-28. SE-Int'l Poultry Education Trade Show/Conv., Atlanta. Harold Ford, 1456 Church St., Decatur, Ga. 30030.
26-29. Nat'l Sporting Goods Assn. Conv. & Show, Houston. Robert J. Youngblood, 717 N. Michigan Ave., Chicago, Ill. 60611.
30-Feb. 1. Southeastern Air-Conditioning, Heating, Refrigerating Expos., Atlanta. In'tl Exposition Co., 200 Park Ave., New York, N.Y. 10017.

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2-4. Southern Farm Show, Raleigh. Southern Shows, Inc. A-340, Merchandise Mart, Charlotte, N.C.
5-8. San Francisco Gift Show. Western Exhibitors, Inc., 2181 Greenwich St., San Francisco, Calif. 94123.
6-9. Iowa Power Farming Show, Des Moines. Melvin Stukenberg, 2716 Grand Ave., Des Moines, Iowa 50312.
12-15. Int'l Expos. for Food Processors, Chicago. Food Processing Machinery & Supplies Assn., 7758 Wisconsin Ave., Washington, D.C. 20014.
15-18. Nat'l Farm Machinery Show, Louisville. Les G. Carlisle, Show Mgr., P.O. Box 21179, Louisville, Ky. 40221.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, visits by foreign buyers and officials, and major construction and expansion projects.

Licensing, Investment Abroad

0200—NIGERIA—U.S. investors sought to establish **livestock raising facility** in Ondo State. Beef cattle, sheep and swine would be raised initially. Capital, equipment and know-how desired from U.S. partner. For name and address of person to contact for additional information, write: Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76982. OPIC.

0212, 0241—SAUDI ARABIA—Partner in well-known company seeks contacts with U.S. firms interested in joint venture to establish **dairy and beef cattle ranch.** Envisioned project includes land reclamation work, irrigation ditching, construction of dariy plant, cattle barns. Partner must be capable of undertaking project from development to construction and supervision of ranch when operable. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76983. OPIC.

0811—BOLIVIA—Seeks machinery and capital to **develop virgin forest of various tropical woods** for export. Project requires saws and related equipment and about $350,000 in capital. U.S. partner is offered 50 percent participation. Firm established 1975, has 12 employees, annual income of $50,000 from sales of cedar and mahogany logs to local sawmills. Orlando Vargas Vera, Riberalta, Beni. Casilla 21. P-761015. OPIC.

2033—NIGERIA—Firm seeks U.S. joint venture partner to establish **food canning operation for tomatoes, onions, rice.** Company's activities include road construction and tobacco distribution. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76984. OPIC

2082, 7011, 2500—NIGERIA—Benue State wishes to form joint ventures with U.S. companies active in following fields: **Beer producing, furniture manufacturing, hotel construction and management.** All of the projects are new, State Government would initially have 60 percent ownership. S. Iyorkar, Permanent Secretary, Ministry of Trade & Industry, Makurdi, Benue State, Nigeria. P-76985. OPIC.

2386—INDIA—U.S. technical and design know-how sought for manufacturing **leather apparel** from locally processed goat and sheep skins. A $2 million modern facility will be built for manufacturing women's, men's and children's leather garments. About 3,100 skins will be processed daily for production of garments. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P176986. OPIC.

2519 — AUSTRALIA — Largest manufacturer of plastic modular furniture seeks licenses to expand production to **children's chairs and tables, modular storage units, wall units and bathroom fittings.** Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76988.

2648—AUSTRIA—Seeks licensing agreements with U.S. **paper converters to produce paper, paper-like products for writing, communications, decoration.** Austrian company makes tablets, notebooks, graph paper and similar products. Is affiliated with Norwegian manufacturer that makes wood pulp and paper in Austria and exports to Common Market. In addition to current production, up to 4,000 metric tons of paper can be processed. Georg Obermueller GmbH, Traunfellnerstrasse 37, A-4020 Linz. P-76989.

3079, 3429 — PERU — Firm interested in licensing arrangement to produce **cylindrical doorlocks and plastic decoration sheets (formica).** Firm, which acts as an importer, seeks information regarding cost of machinery and components, construction area, cost of technical assistance and/or royalty fees. Humberto Canepa, Mgr., Somafe S.A., San Francisco 114 (Casilla 5), Arequipa. Telephone, 23908. P-76990.

3241 — ECUADOR — Seeks joint venture partner to **design and construct cement plant** on 2,300 hectares of land owned by company near Latacunga, Cotopaxi Province. Plant is to produce 1,000 tons of portland cement daily using limestone from nearby deposits. Pre-feasibility study was conducted in 1974. Total investment cost of project is estimated at $50 million, 70 percent of which must be provided by foreign investor. As partner in mixed enterprise, foreign investor may control up to 80 percent of firm. Repatriation of up to 20 percent per year of invested capital will be permitted. Foreign partner will be expected to conduct full feasibility study in connection with design and engineering. Lic. Jose Gabriel Teran, Varea, Manager, Cementos Cotopaxi, C.A., 18 De Septiembre 213, Casilla De Correos 163, Quito. Telephone: 528715. P-76991. OPIC.

3275, 3281 — PORTUGAL — Seeks U.S. technology and finance participation for exploitation of **large quarry of marble and alabaster (black, white, brown and mixed colors)** in Tras-os-Montes region of Portugal. Marble deposit is about 6 km. long and 500 m. wide and comprises two hills about 200 meters high. Paved road lies within 3 km. of site and railroad line within 11 km. Details such as equity and management participation are opened for negotiation. Finance participation may take form of machinery, equipment. Leopoldo Alberto Silveira, Dir., SOCOMAR-Sociedade Cooperativa de Marmores, Lda., Monte Estoril. Telephone: 26 49 84. P-76992.

3452, 3079—PHILIPPINES—Corporate investment group interest in venture development and management of projects seeks joint venture arrangement to produce **externally threaded fasteners such as self tapping metal screws and injected molded car components,** i.e. dashboards and other motor vehicles components, housing, accessories, parts. Group has been one of the leaders in investment banking in Philippines for past ten years. It controls eight subsidiaries in various fields. George B. Olivar, Mgr., Corporate Investments Group, Bancom Group, Inc., MCC P.O. Box 1079, Makati, Rizal. D-708. P-761005. OPIC.

3995 — NIGERIA — Seeks joint venture with American company for manufacture of **caskets or coffins.** Firm desires to produce burial items superior to those currently manufactured in Nigeria. Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-761009. OPIC.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-5361), referring to file number.

AUSTRIA—Firm wishes to establish contact with U.S. manufacturer of **ladies shoes and boots** for either licensing and or joint venture. Mathias Panzl GmbH KG, Goetzstrasse 3-5, P.O. Box 45, A-4820 Bad Ischl. File 3200.

FRANCE—Manufacturer of air-conditioning and heating equipment seeks U.S. licensee to manufacture its **condensation heat exchanger** unit to reclaim heat. C. Levy, Mgr., L'Industrielle de Chauffage, 68, ave. Jean Baptiste Clement, B.P. 404, 92103 Boulogne-Billancourt. File 3201.

GERMANY—Firm manufacturing **chemical building materials and special im-**

pregnated paper used in production of concrete slabs with pebble facings wishes to grant manufacturing licenses on its patented products to U.S. firms. Frau Katherina Arend, c/o Fritz Rethmeier KG, Aller Weg 77, 4930 Detmold. File 3202.

GERMANY — Manufacturer of interior **room dividers, room-dividing-type furniture** for banks, offices, hotels, and **residential furniture** including built-in closets and built-in kitchens, is seeking U.S. partner for manufacturing joint venture in U.S. Friedrich Dinklage, c/o Hadi-Werk, Haarmann & Dinklage GmbH, Postfach 3340, 4902 Bad Salzuflen 1. File 3203.

GERMANY — Manufacturer of **weatherproof protective-chemical compounds** for building industry seeks joint venture partner for production of its line in U.S. Product includes anticorrosion compositions, facade preservation and insulation compounds, sealants, binding chemicals for concrete and mortar hardening processes, waterproof compounds and facade cleaning agents. Albert Schomburg, Schomburg & Co. KG, Postfach 701, 493 Detmold. File 3204.

GERMANY — Manufacturer wishes to make arrangements for licensing and/or joint venture for production of following products made of **plastic: toilets, bath tubs, window sashes, tanks and vessels** of all types. Manfred Roth, Owner/Mgr., Metallwerke Roth KG, D-3563 Buchenau/Lahn. File 3205.

JAPAN—Firm that has invented **"high damping alloy"** which helps absorb vibration, has excellent mechanical properties, and thus can be used for variety of machine parts, offers to license manufacturing of product in U.S. ULVAC Corp. (Hattori Bldg., 1 Kyobashi 1-chome, Chuo-ku, Tokyo 104. File 3206.

SWITZERLAND—Manufacturer of **transparent swing doors**, including opening and closing devices, offers manufacturing licenses for their patented products for licensing in U.S. Contact: Carl Sigerist AG, Platz 4, CH-8201 Schaffhausen. File 3207.

SWITZERLAND—Manufacturer of process control and related hydraulics and pneumatics, offers to license its new line of hp. **rotary torque actuators.** Reportedly, actuators in question permit 100 percent usage as compared with 70 percent usage of competing lines. Arnold AG, Friesstrasse 31, 8050 Zurich. File 3208.

SWITZERLAND—Newly developed swimming aid which will be attached to neck of breast-stroke swimmer is offered for manufacture under license in U.S. Device is made of styrofoam and reportedly ensures correct body position of swimmer and allows free moving of arms and legs. Romeo Waller, RMW-Handels-agentur, Bergstrasse 23, CH-8702 Zollikon. File 3209.

SWITZERLAND — Company offers for licensing its newly developed and patented **motor holding device** for installation on gasoline motor driven boats. It is a portable, pneumatically-hydraulically operated unit which can be installed easily on boats. System permits adjustment of immersion depth of propeller to specific needs of boat owner. Logitec S.A., Machine Outils, 108 Ave. Leopold Robert, 2300 La Chaux-de-Fonds. (attn. ref. 500/JLW/hs). File 3210.

SWITZERLAND—Blind and handicapped Swiss citizen has invented novel **acoustic quartz watch for the blind.** Owns all patents which were developed in collaboration with Swiss engineer. Watch is obtainable in limited quantities in Switzerland. Inventor offers watch for licensing and distribution in U.S. Christian Vetsch, Rislenstrasse 13, 8590 Romanshorn. File 3211.

UNITED KINGDOM—Bristol firm is interested in having its general purpose STOL **aircraft** made in U.S. by U.S. firm for worldwide sales. Research version of the aircraft is available in U.S. for demonstration. File 3198.

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

Investment Possibilities Seen In Zaire's North Kivu Region

The U.S. Embassy in Kinshasa has prepared a report outlining investment possibilities in the North Kivu Region of Zaire. Opportunities exist in the agro-industry for pyrethrum growing and processing, food canning, truck farming, fish processing, beef and dairy cattle raising, and papaya processing. The regions also has potential for further tourism development. A copy of the Embassy's report is available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76981. OPIC.

Visiting Buyers & Officials

SWEDEN — Viktor Ramell, Mng. Dir., Firma Viktor Ramell, Goteborg, will visit New York in January to purchase **raw materials and machinery for manufacture of paint, varnish, and printing ink, including organic and inorganic pigments, dry and paste, and non-poisonous substitutes for chrome yellow.** He also seeks **washing and cleaning systems** used in the above industries. Reliable credit sources recommend business relations with this firm. Contact Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-2068, for additional information.

AUSTRALIA—Richard Dennis of Sydney is interested in contacting U.S. firms engaged in **hydroponics**, specifically in technology, equipment and ingredients of soilless cultivation. He plans to be in the Los Angeles area in mid-January. For further information contact Foreign Buyer Staff, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3265.

COSTA RICA — Allan Franklin Sime, Mgr., Alsima S.A., manufacturer of wooden doors and windows, will visit the United States to contact American firms which manufacture and sell **automated machinery for making solid wood doors** in assembly line manner. American firms interested in supplying this machinery contact Bill Corfitzen, U.S. Dept. of Commerce, Room 2322, Washington, D.C. 20230; 202-377-2068.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such request to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest indicated by codes 0111-1799 and 4011-8999 are based on the Standard Industrial Classification Manual, 1972; codes 20 through 39 come from Numerical List of Manufactured Products (New 1972 SIC Basis), MC72-1, 2. Codes beginning with 99 are from the TOP coding system.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Department's Export Administration Regulations. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Building construction

• **1510—COSTA RICA**—Social Security Institute (CCSS) to publish call for bids for construction of following out-patient clinics: a) Cariari, Province of Limon, 725 sq. meters; b) Jicaral, Province of Puntarenas, 825 sq. m; c) Chomes, Province of Puntarenas, 825 sq. m; d) Santa Maria Dota, Province of San Jose, 725 sq. m; e) Hojancha, Province of Guanacaste, 825 sq. m; f) Colonia Carmona, Province of Guanacaste, 825 sq. m. Information on prequalification and bid deadlines (approximately Jan. 15 and Jan. 30, respectively), general conditions, requirements, and specifications may be obtained from Juan Alfredo Gudino, Jefe, Departamento de Aprovisionamiento, Caja Costarricense de Seguro Social (CCSS), Apartado 10105, San Jose (phone: 23 40 33). Financed by Inter-American Development Bank and CCSS's own resources.

• **1540, 245XXXX, 344XXXX — GUATEMALA** Tender for prefabricated 200/250-bed general hospital to be erected in Puerto Barrios on Caribbean coast. Project urgent and Ministry wishes to start within a month, so no bid will be called. Dr. Benjamin Sultan, Minstro, Ministerio de Salud Publica, Palacio Nacional, Guatemata City, requests that firms send catalogs, prices, delivery, and construction time. Funded from earthquake reconstruction money.

Public building, related furniture

• **2531XXX — HONDURAS** — Proveedor General de la Rublica, Calle Morelos 310, Apartado Postal 177, Tegucigalpa, D.C., has issued tender no. 57-76 for supply of wood school furniture, such as chairs, desks, tables, chalk boards, etc. Bid deadline Jan. 24. Copy of specifications available from above address.

Partitions, shelving, lockers, office, store fixtures

• **2511XXX—GUATEMALA** — Secretaria de la Division de Planeamiento y Diseno, 50 Nivel, Edificio Central de Guatel, 7A. Avenida 12-39, Zona 1, Guatemala City, has issued tender 6-76 for supply of 1,242 telephone booths. Bid deadline Jan. 24. Offers must be in Spanish. Copy of specifications available from above address.

Paper mills

• **2621XXX, 2631XXX — IRAN** — Iranian Tobacco Company requests bids on supplying 1,500 tons of kraft board and 1,115 tons of semi-kraft paper in bobbins of different widths. Kraft board to have substance of 200 grams/M2. Semi-kraft to be supplied with substance of 127 grams/M2. Copies of tender with more detailed information with respect to specifications and conditions of sale available from Construction and Forest Products Division, BDC, Room 2120, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3534. Bid deadline Jan. 16.

Paperboard mills, products

• **2631XXX—MALTA**—Requests bids for supply of 277 tons of mechanical paperboard in 9 lots of 3 tons each with different color. To be supplied in 10" wide reels and have substance of 150 grams/M2. Commodity is required for printing of entertainment duty tickets on Wun-up Machine. Copy of tender containing more detailed specifications and conditions available from Construction and Forest Products Division, Bureau of Domestic Commerce, Room 2120, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3534. Bid deadline Dec. 30.

Synthetic materials

• **2823XXX — INDIA** — Heavy Machine Tools Plant, Heavy Engineering Corp., Ltd., Stores and Purchasing Dept., HMTP Admin. Bldg., P.O. Dhurwa, Ranchi 834004, Bihar has issued tender no. PUR/HTP/60056/76/1180 for supply of digital readout system with measuring and reading units, to be installed on horizontal boring machine in firm's shop. Bid deadline Jan. 25. Copy of specifications available from above address.

Drugs

2834998 — INDIA — Importer wishes to purchase five to ten kilograms each of quinapyramine sulfate, quinuronium sulfate, hexachloroethane, and suramin, or equivalent veterinary preparations if individual drugs not available. Importer holds valid import permit valued at $22,000. Contact N.K. Shah, G. Loucatos and Company, Mercantile Chambers, Graham Road, Ballard Estate, Bombay 400001; Cable; Gerassimos-Bombay 1.

Gum, wood chemicals

• **2865XXX—TURKEY**—Dodecyl benzene (hard alkylate), 3,100 metric tons. Tender number N. Bid deadline Jan. 14. Submit proposals to Petkim Petrokimya A.S., P.O. Box 104, Yenisehir, Ankara. Technical specifications available from Chemicals and Rubber Program, Materials Division, OBRA/BDC, Room 2100, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3464. Review copy also available at Commerce District Office, Federal Bldg., P.O. Box 36013, 450 Golden Gate Ave., San Francisco, Calif. 94102; 415-556-5868.

Steel mill products

3312111 — MEXICO — Coke, approx. 500 M/T/mo. F.o.b. quotations needed at Nuevo Laredo, Tijuana or other border towns. 6 to 8 in. as well as from 4 to 6 in., high quality, low humidity content. Reply to Esteban Lopez Torres Gerente, Union De Credito De La Industria Metalica De Occidente S.A. De C.V., Madero 441, 1ER Piso, Guadalajara, Jal., Mex. Tel. 142426 or 142506.

Rolling & drawing of nonferrous metals

• **335XXXX — ALGERIA** — Various sizes and quantities of electrical wire and telephone wire. Tender No. 1/77; bid deadline Jan. 30. Sonelec, Rue de Constantine, BP 87, Kouba, Algiers. Tender documents available from above address. Correspondence in French required.

Fabricated metal products

• **344XXXX—HAITI**—Education Project No. 1, Government of Haiti/World Bank, whose offices are located in the Ministry of National Education, Port au Prince, Haiti, has invited foreign contractors to submit applications for prequalification to bid for supply of reinforcing concrete bars. This is the first time in years that the import of steel bars has been permitted. Project will be financed within framework of Credit Agreement 618 HAX between Government of Haiti and International Development Association. Bid documents can be purchased for US$10 from Project Office, Ministre de l'Education Nationale, Cite de l'Exposition, Port-au-Prince. Tenders must be in by Jan. 14.

34973XX—AUSTRIA Hot sealing foils. Offers with f.o.b. quotations requested. Reply to Mr. Greilinger, Nicoplast GMBH, Endresstrasse 18, A-1231 Vienna. Cable Nicoplastic, Tel. 222/869220, Telex 11350. Dir. sale & agency.

Construction, mining, materials handling machinery, equipment

• **3531XXX—BURMA** — Deputy Director (Stores) Irrigation Department, ½ Mile

Road, Rangoon, requests bids on supply of ten concrete mixers of 14/10 cu. ft. capacity, ten of 10/7 cu. ft. capacity, and three of 7/5 cu. ft. capacity; supply of 20 gasoline powered vibrators; supply of 3 bar cutting and bending machines. Will be financed with IDA credit. Embassy will forward copies of bid documents and specifications to interested U.S. firms on request, citing "T-0007," enclosing check for $6 per set. Bid No. IRR/IDA/(2), 76-77, deadline Jan. 17.

353401X, 3534051, 3535111 — TAIWAN — Furnishing & installation 26 units electric hydraulic passenger elevators; electric hydraulic service elevators: capacities 1,500, 2,000, 2,500, 3,000 & 3,500 lbs., speed 125/150 FPM & 75/100 FPM. Elevators shall be plunger electric type with direct acting plunger, pumping unit, etc. 6 sets escalators, 30 degrees, 8,000 persons/hr. Hgt. 7.7M, width 1,000MM. Airport use conveyors. Telex or cable Der-Shu Chung, Gen. Mgr., China Elevators Corp., P.O. Box 39-62, 3rd Fl., 102 Nanking E. Rd., Sec. 1, Taipei 104, Cable Antcds, Tel. 562-3715, Telex 23543 Kingsei.

General industrial machinery

• **356XXXX — TRINIDAD** — Seven deep well turbine pumps and 100 standby pump sets for various water installations. Tender No. not specified; bid deadline extended to Dec. 30, C. E. Polo, Director of Contracts, Central Tenders Board, Corner Elizabeth St. & St. Clair Ave., St. Clair, Port of Spain. Short delivery period is of prime concern and will play important part in assessment of tender.

Communications equipment

• **3662XXX — ALGERIA** — Ministere de l'Information et de la Culture, 119 rue Didouche Mourad, Algiers, has issued tender no 370-E for supply of two hertzian beam television vehicles with accessories. Bid deadline Jan. 13. Copy of specifications available from RTA, Direction des Services Techniques et de l'Equipement, 21 Blvd. des Martyrs, Algiers, for 100 DA (approx. U.S. $25).

• **3662XXX — IRELAND** — Engineer-in-Chief, Department of Posts & Telegraphs, Contracts Section, Marlborough St., Dublin, has issued tender no. C/610/1/28 for supply and installation of color TV coaxial cable systems. Bid deadline Jan. 28. Copy of specifications available from above address.

• **3661XXX—NEPAL**—General Manager, Nepal Telecommunications Corp., Singha Durbar, Kathmandu, has issued tender for supply of broad-band microwave system with 8 links, three UHF spur systems, CB manual exchanges, telephone instruments, automatic telephone exchanges, and cable network materials for about 10,000 subscribers. Tenders will be issued to firms which prequalify by sending resumes of successful similar installations to address above.

• **3662XXX—MALAYSIA**—Department of Broadcasting, Angkasapuri, Kuala Lumpur, has issued tender no. 41/JP/R/1976 for supply of two high power shortwave transmitters and four sets of antennas for overseas broadcasting. Bid deadline Jan. 17. Value estimated about M$7.5 million. Copy of specifications available from address above at M$50. per set (U.S. $1.00 = M$2.50).

Engineering, laboratory, scientific, research instruments

• **3811XXX — INDONESIA** — Director General of Higher Education, Department of Education and Culture, Jalan Pintu Satu Senayan, Tromol POS 190 Dak., Jakarta Selatwn, has issued tender for supply of laboratory equipment for use in teaching engineering, physics, chemistry, and biology. Bid deadline Feb. 14. Copy of specifications available from address above for Rupiah 41,500 (approx. U.S. $100).

3811XXX—IRAN—Bidders are asked to correspond with National Iranian Steel Corp., Tehran, to obtain further information on intention to purchase one set of blast furnace gas analyzers.

Motion picture production, distribution

7814—REPUBLIC OF MALDIVES—Government of the Republic of Maldives requests information on supply and/or lease of television films of (a) films for children including educational and cartoons, (b) general educational films and (c) non-restricted films of various series. Offers with respect to costs and conditions for leasing required films should be sent directly to: Department of External Affairs, Male, Republic of Maldives.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Machine tool accessories

35451XX—SWEDEN—Small tools for machine tools & metalworking machinery such as: threading tools, high speed steel threading tools, carbide, solid & tipped blanks & tips, incl. carbide, cast alloy & ceramic. Other types of cutting tools for machine tools, incl. rotary burrs & rotary files, spade drills & so-called "Fliessformbohren." High speed steel carbide, solid & tipped. Broaches, high speed steel; carbide, or special cast alloy, etc. Twist drills: steel drills, high speed steel, taper shank & straight shank; carbide, solid & tipped (exel. tips & blanks sold separately & masonry drills). Medium-sized well-estab. firm specializing in products for metal industry. Has 35 employees & approx. annual turnover skr 12 million. Share capital skr 100,000. Business obligations met promptly, according to local credit sources. Highly recommended trade contact. Mr. Lindgren, principal shareholder, plans to visit U.S. in spring 1977 at which time he would like to discuss agency agreements with interested U.S. suppliers. Reply ASAP to Hans Lofgren, Colly Co. AB, Box 724, S-181 07 Lidingo. Telex 17421; tel 08/765 26 40.

Pulp & paper machinery

35540XX—SWEDEN — Cato Sandberg wishes to contact American firms seeking representation in Scandinavia for all types of paper and pulp machinery, attachments and parts. Although his firm is small and recently established, it does have a reliable credit reputation. For more information, contact Peter B. Alois, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230; 202-377-3265.

UNDP Approves 28 Requests For Financial, Technical Aid

The United Nations Development Program (UNDP) has recently approved 28 requests for financial and technological assistance from 16 countries and regions. These projects are listed below with the potential opportunities for subcontracting or procurement of equipment, or both, shown in parenthesis.

Interested U.S. firms may obtain copies of these project summaries from the Export Information Reference Room, Office of Export Development, Room 1063, Attn: Betty W. Patrick, U.S Department of Commerce, Washington, D.C. 20230. Please include a self-addressed label with your request, and identify each project summary desired by project number, country, and title. If the booklet, *UNDP Business Guide*, would be useful, please so indicate.

AFG/75/008 — AFGHANISTAN — Strengthening of Afghan cartographic cadastral survey institute (subcontract/equipment).

AFG/75/022 — AFGHANISTAN — Strengthening of government capability for preservation of historical monuments (equipment).

BGD/72/022—BANGLADESH — Telecommunication training center (equipment).

BGD / 73 / 006 — BANGLADESH — Strengthening agricultural extension services (equipment).

BGD/73/074 — BANGLADESH Institute of epidemiology and vector control (equipment).

BGD/74/002 — BANGLADESH Educational administration and planning (equipment).

BGD/75/029 — BANGLADESH Applied remote sensing technology (subcontract/equipment).

BOL/75/003 — BOLIVIA — Industrial promotion of asbestos industry (equipment).

COL/75/018 — COLOMBIA — Education administration and planning (equipment).

ELS/74/017 — EL SALVADOR Strengthening of national planning system (equipment).

ETH/75/001 — ETHIOPIA — Development of Awash Valley (Phase IV) (equipment).

GUI/73/001 — GUINEA — Assistance with sanitation in Conakry (subcontract/equipment).

GUI/74/003—GUINEA — National rural development documentation and information center (equipment).

GUI/74/018 — GUINEA — Plant and foodstuffs protection laboratory (equipment).

GUI/74/020 — GUINEA — Establishment of veterinary diagnostic service and improvement of animal vaccine laboratory (equipment).

HON/75/004— HONDURAS — Forestry management and lumber production (equipment).

IND/71/610—INDIA Establishment of demonstration plant for production of synthetic fibres, sasmira, Bombay (equipment).

IND/72/058 — INDIA — Hydrostatic extrusion and material synthesis (subcontract/equipment).

IND/74/014 INDIA — Establishment of national welding research institute (equipment).

IND/74/069 — INDIA — Development of mushroom cultivation in Himachal Pradesh (equipment).

MAR/72/001 — MAURITIUS — Institute of education (subcontract/equipment).

NEP/73/004—NEPAL — Hill agriculture development (equipment).

RAF/75/001 — REGIONAL (AFRICA) —Animal trypanosomiasis control: economic assessment and applied research on glossina control in the dry savannah zones (subcontract/equipment).

SOM/76/003 — SOMALIA — Strengthening groundwater services (equipment).

TUR/72/034 — TURKEY — Cement development and research center (equipment).

VEN/75/005 — VENEZUELA — Civil aviation (equipment).

VEN/75/010—VENEZUELA — Center for musical studies, training and research (equipment).

YEM/73/911—YEMEN—Auto services organization (equipment).

Future Construction Abroad

COLOMBIA — Empresa Colombiana De Niquel Ltda., ECONIQUEL, (Colombian Nickel Co.) and Compania de Niquel Colombiano S.A., CONICOL, a subsidiary of Hanna Mining Co. of Cleveland, have developed joint-venture to develop mine and ferronickel producing facilities at Cerro Matoso, near Montelibano in Department of Cordoba located in north Colombia. Project includes mine, pyrometallurgical processing and ancillary facilities for processing up to 850,000 dry metric tons per year of lateritic nickel ore. Construction will be performed through series of contracts and will include temporary construction facilities, road construction, townsite urbanization, housing, site preparation, pile driving, concrete foundations and structures, erection of structural steel, installations and piping systems, and installation of refractories. Project will require purchase of **equipment for surface mining, primary crushing, stockpiling, drying, secondary crushing, screening, ore storage, agglomerating, calcining, electric furnace smelting, and refining. Mechanical and electrical equipment, instrumentation, piping and building materials will also be required.** Will have total cost of $300 million. Design studies have already been performed by U.S. firm Bechtel Corp. ECONIQUEL and CONICOL have applied for loan from IBRD in various currencies equivalent to $75 million. Invitation to prequalify will be issued in near future (expected by early 1977 depending on development of financing packages). Remaining $225 million expected to be financed by other international credit agencies, private banks and suppliers. Further information can be obtained at: Empresa Colombiana de Niquel, ECONIQUEL, Attn: Dr. Fernando Diaz Bueno, Gerente, Carrera 7 No. 26-20, Piso 8, Bogota; Compania de Niquel Colombiano S.A., CONICOL, Carrera 10 No. 27-27, Piso 4, Attn: Allan Milner, Gerente, Bogota; Cerro Matoso Project, c/o Bechtel Corp., Agents, Mining & Metals Div., Attn: D. Sedgmore, P.O. Box 3965, San Francisco, Calif. 94119.

PERU—Ministry of Transport and Communications is prequalifying firms for **consulting and supervisory services for pavement works** on San Mateo-Morochocha Section of Chosica-La Oroya Highway in Departments of Lima and Junin. Project is to cover 39.2 km. of road, with estimated cost of $524,973. Deadline is Dec. 29 and tender documents are available for 2,000 Peruvian Soles ($30) until Dec. 2 from Ministerio de Transportes y Comunicaciones, Direccion General de Transporte Terrestre, Direccion de Ingerieria, Sala de Reuniones No. 1, Avenida 28 de Julio No. 800, Lima 1. Project is to be financed with IBRD funds.

ALGERIA—The government is seeking qualified firms for equipping and installation of **maritime engineering works laboratory** for National Engineering and Technical School as well as assistance in starting and operating the laboratory. Tender documents are available from Monsieur le Directeur de l'Administration Generale, Ministere des Travaux Publics et de la Construction, 135 Rue Didauche Mourad, Algiers (Cable: MITRAP ALGER; Telex: 52713). Al correspondence should be in French and all specs metric. Closing dates for submittal of bids Jan. 2. Please send copy of initial correspondence to Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C. 20230; 202-377-4441.

EGYPT—Foreign Purchase Committee of Misr Fine Spinning and Weaving Co., Kafr el Dawar (Cable: NASG KAFR EL DAWAR; Phone: 69587; Telex: 4092 NASG UN) is seeking qualified firm for supply and erection of complete **water purification plant** with capacity of 500 cubic meters per hour of filtered water for drinking and industrial purposes. Will be extension of existing water plant in company's mills at Kafr el Dawar and will supply filtered water for existing mills. Closing date for submittal of offers Jan. 16. For additional information contact Pete Zantal, 202-377-4441.

EGYPT—General Organization for Sewerage and Sanitary Drainage, Foreign Purchasing Committee, Tahrir Bldg., Sixth Floor, Tahrir Square, Cairo, is seeking qualified firms for supply and erection of **mechanical and electrical equipment for sewage pumping stations** in town of Samanoud Egypt. Tender documents available from above address for LE 50 ($125) per copy. Tenders will be accepted only from public sector company or registered trade representative. Closing date Jan. 10. Please send copy of initial correspondence to Pete Zantal, 202-377-4441.

MOROCCO—Office Regional de Mise en Valeur Agricole du Tadla, Fquih Ben Salah, is seeking qualified contractors for construction of a reinforced trapezoidal **canal** seven kilometers in length and approximately 507 cubic meters in volume. Closing date for submittal of offers is Feb. 9. For additional information contact Pete Zantal, 202-377-4441.

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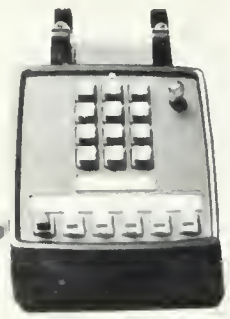

International Marketing

Commercial and economic information on most trading partners of the United States is available from the Office of International Marketing, Bureau of International Commerce, U.S. Department of Commerce.

Assistance or information about overseas marketing may be obtained by dialing key people directly: **202-377** plus the given extension. For information related to specific countries contact the Country Marketing Manager:

Africa (sub-Sahara) **4927**

Europe

France and Benelux Countries **4504**

Germany and Austria **5228**

Italy, Greece and Turkey **3944**

Nordic Countries **3848**

Spain, Portugal, Switzerland and Yugoslavia **2795**

United Kingdom and Canada **4421**

Far East

Australia and New Zealand **3646**

East Asia and the Pacific **5401**

Japan **2425**

South Asia **2522**

Latin America

Brazil, Argentina, Paraguay and Uruguay **5427**

Mexico, Central America and Panama **2314**

Remainder of South America and Caribbean Countries **2995**

For information related to the overseas promotion plans for specific product groupings, contact the Operational Planning Division organized along the following industry lines:

Group I — Computers, business, graphic arts, agribusiness and packaging equipment. **3036**

Group II — Electronics production and components, metalworking, communications, and specialized production machinery and equipment. **3168**

Group III — Laboratory, scientific, test and measuring instrumentation, healthcare and specialized processing equipment. **2843**

Group IV—Water and Air purification, electric energy, construction, materials handling, transportation machinery and equipment and consumer goods. **2808**

Special units within the Department of Commerce have been created to deal with particular marketing situations:

Commerce Action Group for the Near East

North Africa **5737**

Near East

Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Peoples Democratic Republic of Yemen, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen Arab Republic **5767**

Iran, Israel, Egypt **3752**

Bureau of East-West Trade

Assistance and information on how to do business with and selling U.S. products to the U.S.S.R., People's Republic of China, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania may be obtained from the Office of East-West Trade Development in the Bureau of East-West Trade, U.S. Department of Commerce, Washington, D.C. 20230.

For information on the following product areas, contact the Trade Development Assistance Division or dial extension:

Electronics and Aviation Equipment **2871**

Automotive, Construction, Mining and Metallurgical Industries **3352**

Chemicals, Pharmaceuticals, and Related Processes and Equipment **3968**

Energy and Services **2835**

Capital Equipment, Food Processing, and Textile Machinery **4002**

For information on exhibitions, seminars and other promotion events sponsored by the Department of Commerce in these countries, contact the Trade Promotion Division or dial **202-377-4161.**

For information on the economies of any of these countries—plans, performance, foreign trade, bilateral relations with the United States, trade agreements, joint commissions and policy issues—contact the:

U.S.S.R. Affairs Division **4655**

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